



MassDEP RTN 3-23246

Phase V Status Report No. 26 and Remedial Monitoring Report No. 41

50 Tufts Street, Somerville, Massachusetts

Submitted to:

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Acronyms and Abbreviations

µg/L	micrograms per liter
AUL	Activity and Use Limitation
CEP	Critical Exposure Pathway
COPC	Compounds of Potential Concern
CRA	Comprehensive Remedial Action
CSA	Comprehensive Site Assessment
DNAPL	Dense non-aqueous phase liquid
EPA	U.S. Environmental Protection Agency
EPMM	Exposure Pathway Mitigation Measure
FIR	Final Inspection Report
GEI	GEI Consultants, Inc.
GLX	Green Line Extension
IH	Imminent Hazard
IRA	Immediate Response Action
lbs	Pounds
LQG	Large Quantity Generator
LSP	Licensed Site Professional
MassDEP	Massachusetts Department of Environmental Protection
MBTA	Massachusetts Bay Transportation Authority
MCP	Massachusetts Contingency Plan
MNA	Monitored Natural Attenuation
NAPL	Non-aqueous phase liquid
NSR	No Significant Risk
OHM	oil and/or Hazardous Material
OMM	Operation, Maintenance, and Monitoring
PCE	Tetrachloroethylene (perchloroethylene)
PSS	Permanent Solution Statement
RAM	Release Abatement Measure
RAO	Response Action Outcome
RAP	Remedial Action Plan
RIP	Remedy Implementation Plan
RMR	Remedial Monitoring Report
ROS	Remedy Operations Status
RTN	Release Tracking Number
SHE	Substantial Hazard Evaluation
SSDS	Sub-slab Depressurization System
SVE	Soil Vapor Extraction
TCA	1,1,1-trichloroethane
TCE	Trichloroethylene
VOC	Volatile Organic Compound

Executive Summary

On behalf of UniFirst Corporation (UniFirst) of Wilmington, Massachusetts, GEI Consultants, Inc. (GEI) prepared this Phase V Status Report No. 26 and Remedial Monitoring Report (RMR) No. 41 for the site located at 50 Tufts Street in Somerville, Massachusetts (the Site). The Site is identified by Massachusetts Department of Environmental Protection (MassDEP) Release Tracking Number (RTN) 3-23246. The Site includes the 50 Tufts Street property (the Property), other properties in the neighborhoods east and immediately north, south, and west of the Property, and the Michael E. Capuano Early Childhood Center (Capuano Center) located at 150 Glen Street in Somerville, Massachusetts. The Site has been in Remedy Operation Status (ROS) since 2011. This Phase V Status Report No. 25 covers the period from December 16, 2023 to June 15, 2024.

E.S.1. Background

From approximately 1955 to 2002, the Property was used for storage and distribution of industrial chemicals, laundry supplies, and dry-cleaning supplies. Chemicals stored at, and transported to and from the Property, included chlorinated volatile organic compounds (VOCs). These chlorinated VOCs – particularly tetrachloroethylene (also called perchloroethylene [PCE]), trichloroethylene (TCE), and 1,1,1-trichloroethane (TCA) – have been detected in soil, soil vapor, indoor air, and groundwater at the Property and are therefore the compounds of potential concern (COPCs) for the Site. In some buildings within the Site, chlorinated VOCs have been detected in indoor air samples.

The detection of chlorinated VOCs in indoor air at some buildings required the implementation of an Immediate Response Action (IRA). The “Immediate Response Action Plan” associated with RTN 3-23246 was submitted to MassDEP on January 9, 2006. The Site was classified as Tier IC (Permit No. W085813). The “Phase II Comprehensive Site Assessment (CSA), Method 3 Risk Characterization, and Phase III Remedial Action Plan (RAP)” (Phase II/III) for the Site was submitted to MassDEP on July 14, 2008. The “Phase IV Remedy Implementation Plan” (Phase IV RIP) was submitted to MassDEP on August 10, 2009. The “Immediate Response Action Completion Report and Remedial Monitoring Report No. 11” (IRAC Report) was submitted to MassDEP on November 13, 2009, and the “Immediate Response Action Completion Report Amendment” (IRAC Report Amendment) was submitted to MassDEP on April 1, 2011. The “Phase IV Final Inspection Report, Remedial Monitoring Report No. 15, and Phase V Remedy Operation Status Report” (Phase IV FIR/Phase V ROS) was submitted to MassDEP on August 4, 2011. The Site was reclassified as Tier II on August 1, 2014.

The remedial action alternative (RAA) selected by the Phase III evaluation included:

1. Installing Exposure Pathway Mitigation Measures (EPMs) to the extent feasible (e.g. vapor barriers and venting systems, or sub-slab depressurization systems [SSDs]), and recording Activity and Use Limitations (AULs) as appropriate, for residences where the soil vapor migration pathway to indoor air has been confirmed, and installing EPMs in occupied commercial buildings to reduce chlorinated VOC concentrations in indoor air to that which constitutes a condition of No Significant Risk (NSR).

2. Continuing to operate the soil vapor extraction (SVE) system at the Property to remove COPCs from the vadose zone.
3. Conducting a Site-wide Monitored Natural Attenuation (MNA) program to evaluate overburden and bedrock groundwater plume concentrations over time to assess the rate of natural attenuation processes, and to confirm that groundwater concentrations of chlorinated VOCs are generally stable or decreasing.

The Phase IV FIR/Phase V ROS documented that construction and implementation of the Comprehensive Response Action (CRA) has been completed; and additional activities, such as operation and monitoring of active remedial systems, will be conducted under Phase V ROS.

In accordance with the MCP, particularly 310 CMR 40.0892, this Phase V Status Report No. 26 and RMR No. 41 includes the following information regarding the remedial actions being conducted at the Site:

- A description of the type and frequency of operation, maintenance, and/or monitoring (OMM) activities.
- A description of any significant modifications made to the OMM activities since the last reporting period.
- An evaluation of the performance of the remedial action during the reporting period, including whether the remedial action is achieving remedial goals specified in the Phase IV RIP as described in 310 CMR 40.0874(3), and a description of any conditions or problems identified through OMM activities during the reporting period that are, or may be, affecting the performance of the remedial action.
- A description of the measures taken to address any conditions or problems identified through OMM activities during the reporting period.
- The name, license number, signature and seal of the LSP.

Following is a summary of OMM activities conducted at the Site to date:

E.S.2. Capuano Center

An SSDS is installed in the east wing of the Capuano Center. In addition, GEI sealed certain slab/wall joints at the Capuano Center to mitigate a potential preferred migration pathway. GEI conducted 24 rounds of indoor air sampling after the SSDS was installed in February 2007. The soil vapor migration pathway to indoor air has been eliminated and a condition of NSR has been achieved for occupants of the Capuano Center. Accordingly, it is GEI's opinion that the system was constructed and is operating in accordance with the design standards provided in the Phase IV RIP and has achieved the remedial objectives.

The system currently includes three radon fans on dedicated discharge pipes for each collection header extending above the roofline. Remote telemetry sensors are installed on the system. GEI performed post-modification indoor air sampling on May 23 and 24, 2015. VOCs were not detected above laboratory reporting limits during the indoor air sampling, indicating that the system as modified continues to meet the remedial objectives.

GEI will continue to inspect and maintain the system and continue operation and monitoring under ROS.

E.S.3. Residential and Commercial Properties

As part of the IRA, while Site conditions were still under investigation, GEI took timely action to evaluate and implement measures to eliminate or mitigate Critical Exposure Pathways (CEPs) to the extent feasible. The feasibility of such measures was determined by physical conditions, including the suitability of each property to installation of active or passive vapor controls, and by amenability of property owners to provide access. Mitigative measures were initially implemented as IRA activities. The Phase II/Phase III assessment and evaluation of RAAs included response actions to address CEPs as part of the recommended CRA. With the submittal of the Phase IV RIP, the IRA addressing CEPs was closed with an IRAC Report and an IRAC Report Amendment. In accordance with the MCP (310 CMR 40.0427), “mitigation of Critical Exposure Pathway(s) is continuing by incorporation of ongoing response actions to address the Critical Exposure Pathway(s) into the Phase IV Remedy Implementation Plan for the disposal site.” Following the submittal of the IRAC Report and IRAC Report Amendment, therefore, all further response actions, including mitigation of any CEPs at the Site, have been conducted in accordance with the Phase IV RIP. Construction and implementation of the CRA has been completed. OMM activities, including operation of active remedial systems and active EPMMs (AEPMMs), continue to be conducted under Phase V ROS or are being implemented as Partial Permanent Solutions Statements (PSSs) with Conditions.

Following is a summary of activities conducted and results obtained with respect to EPMMs through June 15, 2024:

- EPMMs have been installed or are being installed in 24 residential and commercial properties, not including the EPMMs installed at 50 Tufts Street, 60 Tufts Street, and the Capuano Center. Currently EPMMs are relied upon to meet the remedial objectives at 20 properties and not being relied on at the following:
 - One EPMM (at 103 Washington Street) was abandoned when the building was vacated and then demolished as part of redevelopment. The redevelopment of the mixed-use building at 103 Washington Street did not include an EPMM (see below for additional information).
 - An EPMM was installed at 163 Glen Street when the former American Legion Post building was redeveloped as multi-family housing. It was demonstrated that the EPMM was not required based on sub-slab soil gas sampling results that were below residential sub-slab soil gas screening levels.
 - The EPMM at 10 Morton Street has been temporarily removed during building renovation activities. A new EPMM is being installed during renovation.
 - An EPMM is in the process of being installed at 121 Washington Street, a mixed-use building with retail space on the ground floor and residences above but is not yet complete.
- The property at 103 Washington Street has been redeveloped as a mixed-use building with commercial space and open-air parking on the first floor and residential units above without an EPMM. As of February 2024, construction is complete, and the building is occupied. GEI has started conducting a vapor intrusion evaluation at the property.

- The property at 105 Washington Street has been redeveloped as a mixed-use building with commercial space and open-air parking on the first floor and residential units above. Construction activities were completed in June 2022, and the building is occupied. An EPMM was not installed. GEI conducted indoor air and sub-slab soil vapor sampling at 105 Washington Street in March 2022, February 2023, and May 2023. The sampling results indicated that the vapor intrusion pathway is unlikely to be of concern under current and future conditions. Additional sampling is not planned for 105 Washington Street.
- The property at 10 Morton Street is being renovated which includes lowering the elevation of the basement floor and installing a replacement EPMM. The replacement EPMM, which was partially installed in February 2024, provides for a sub-slab venting system and 20 mil vapor barrier and for post installation sub-slab soil gas and indoor air testing to be conducted to evaluate whether the EPMM and an AUL are required to maintain a condition of NSR. The EPMM installation will be complete when the riser pipe to the roof is reconnected, which will occur when the siding is installed at the residence. In April 2024, GEI installed four new soil vapor pins through the foundation slab. Following the riser pipe installation GEI will collect confirmatory sub-slab soil vapor samples.
- The property at 31 Tufts Street, formerly a paved parking lot, has been redeveloped with multi-family housing. The development is a three-story residential apartment building with surface parking and public open space. An EPMM was incorporated into the new construction pursuant to a RAM Plan submitted for this property in July 2022. GEI conducted indoor air and sub-slab soil vapor sampling at 31 Tufts Street in October 2023 and January 2024. Indoor air samples were collected at three locations on the first floor. One sample was in the utility room and two samples were from within residential units (the three-bedroom and two-bedroom apartments). Two soil gas samples were collected from beneath the building and the concentration of PCE and TCE in all the samples collected were less than residential sub-slab screening values. The indoor air concentrations of PCE ($0.203 \mu\text{g}/\text{m}^3$ and $0.176 \mu\text{g}/\text{m}^3$) were substantially lower than the residential Threshold Values (TV_i) ($1.4 \mu\text{g}/\text{m}^3$) in the October sampling and were not detected in the January round. GEI will continue coordinating with the owner and developer of the property to continue performing the vapor intrusion evaluation at the property. An additional round of soil gas and indoor air sampling is planned for August 2024, the results of which will be incorporated as part of the ROS.
- The property at 121 Washington Street is being redeveloped into a mixed-use building with commercial space on the ground floor and apartment units above, there is no parking associated with the development. A small commercial building that formerly occupied the property and was demolished in 2020. As of June 2024, most of the building envelope is complete. An EPMM is being incorporated into the new construction, consistent with a RAM Plan submitted in February 2024. Between February and April 2024, GEI observed components of the sub-slab vapor mitigation system installation and smoke testing. Other portions of the vapor mitigation system will be installed pending selection of commercial tenancy.
- GEI conducted three EPMM inspections during this reporting period in the months of February, April, and May 2024. GEI will conduct annual EPMM inspections in the fall of 2024. GEI was unable to access two of the residential properties but will continue its attempts to obtain access for EPMM inspections at these properties during the next reporting period.

- ARCADIS U.S., Inc. (ARCADIS) prepared an Updated 2015 Method 3 Risk Characterization, which incorporated updated soil, groundwater, and indoor air data sets, and included updated MassDEP toxicity information, particularly for PCE and TCE. Based on the Updated 2015 Method 3 Risk Characterization, the performance of individual EPMMs, and a review of indoor air sampling results for samples collected since the Updated 2015 Method 3 Risk Characterization, a condition of NSR exists for current and future building occupants at each property within the Site.
- A Permanent Solution with Conditions Statement will be submitted for each property with an active or passive EPMM, where the EPMM has achieved the remedial objectives, an AUL has been recorded for the property, and sufficient post-EPMM indoor air sampling has been conducted. The filing of a Partial PSS with Conditions for an individual property documents the achievement of regulatory closure under the MCP for that property. Therefore, the Phase V provisions will not apply to properties for which a Partial PSS with Conditions has been submitted.

E.S.4. 60 Tufts Street

An SSDS has been installed in the 17-unit condominium building at 60 Tufts Street. The SSDS monitoring data show that the sub-slab vacuum field generated by the SSDS provides sufficient coverage to be protective. Indoor air testing results indicate that a condition of NSR has been achieved for building occupants at 60 Tufts Street. Accordingly, it is GEI's opinion that the system was constructed and is operating in accordance with the design standards provided in the Phase IV RIP and has achieved the remedial objectives.

Remote telemetry was installed on the system on July 24, 2015. GEI will continue to inspect and maintain the system. GEI monitors parameters and sub-slab conditions for the system (e.g., flow rate, vacuum) at the headers on a quarterly basis. GEI will continue operation and monitoring of the SSDS at 60 Tufts Street under ROS.

Based on pre-EPMM indoor air testing at 60 Tufts Street, and changes to the toxicological characteristics for PCE, the AEPMM may not be required to maintain a condition of NSR. GEI has communicated with the owners and occupants of 60 Tufts Street, who are amenable to EPMM closure indoor air testing. In accordance with MassDEP's 2016 VI Guidance, GEI has initiated a closure indoor air testing program at 60 Tufts Street. However, this testing was suspended during the COVID-19 pandemic. The unit GEI had been testing was sold, the condominium property management company changed, and GEI has not been able to contact the new owner.

E.S.5. 50 Tufts Street Property

An SSDS and an SVE system have been installed at the Property. The SSDS monitoring data continue to show that the sub-slab vacuum field generated by the SSDS provides sufficient coverage to be protective. The building is currently occupied by several commercial tenants. Based on indoor air testing results collected since the combined system has been in operation, a condition of NSR has been achieved for the building at the Property for full-time commercial workers. Accordingly, it is GEI's opinion that the system was constructed and is operating in accordance with the design standards provided in the

Phase IV RIP and has achieved the remedial objectives. GEI will continue operation and monitoring of the combined SSDS/SVE system at 50 Tufts Street under ROS.

Remote telemetry was installed on the 50 Tufts Street system on April 14, 2015. The telemetry system at 50 Tufts Street consists of a wireless remote monitoring hub that receives telemetry notification from the other AEPMMs throughout the Site. GEI monitors parameters and sub-slab conditions for the system (e.g., flow rate, vacuum, off-gas treatment efficiency) quarterly, and monitors for off-gas treatment efficiency monthly.

The combined SSDS/SVE system installed at the Property serves to protect indoor air quality and to remove source material from the vadose zone below and around the building. Monitoring data from both the SSDS and SVE components through June 15, 2024 show that approximately 9,441 lbs of VOCs have been removed from the vadose zone at the Property. GEI will continue operation and monitoring of the combined SSDS/SVE system at 50 Tufts Street under ROS.

E.S.6. Future Activities and Impact of 2014 MCP Amendments for AEPMMs

Current MCP requirements for AEPMMs implemented to meet the conditions for ROS (310 CMR 40.1026), include an operating regime for the active system and remote monitoring and automatic notification in the event of system failure. Operating regimes for active systems at the Site were included in the Phase IV FIR/Phase V ROS submitted on August 4, 2011 and included an OMM plan for the active systems.

The MCP requires that remote telemetry provide the owner and operator of the building and MassDEP notification upon failure of the system. Remote telemetry has been installed at each property with an AEPMM including the Capuano Center, except for 9 Knowlton Street. The owner of 9 Knowlton Street has been unresponsive to telemetry access request letters, telephone calls, and property visits. Therefore, it is currently infeasible to install telemetry at this property.

GEI has been evaluating the current telemetry system in consideration of the 2024 MCP amendments, effective March 1, 2024. The MCP amendments include continual monitoring of system vacuum. However, GEI understands that properties where telemetry systems are already registered with MassDEP will be grandfathered in (310 CMR 40.1026[3][d][6]) and are not required to continually report system vacuum.

E.S.7. Tufts Street Reconstruction Project

The City of Somerville is in the planning stages to reconstruct the Tufts Street sidewalks and roadway. Several virtual and in-person community outreach meetings have been held during the previous reporting periods between August and October 2023. The meetings were held virtually, and community events were in-person. A GEI representative attended both the virtual and in-person community meetings to evaluate the potential interplay between the disposal site and future reconstruction of the roadway and sidewalks.

On February 29, 2024, the City of Somerville announced that based on community feedback the scope of the project would expand to include the addition of planting trees and greenery. The City of Somerville stated that this may require deeper excavations and stated that due to the historical contamination originating at 50 Tufts Street additional shallow soil analysis was planned. The City of Somerville announced that the construction schedule has been updated to 2025 and 2026. GEI has met with and will continue to coordinate with the City of Somerville. GEI understands that the project will be conducted under a Utility Release Abatement Measure Plan which will include a Soil and Groundwater Management Plan.

On February 12, 2024, GEI observed the advancement of five soil borings on the 50 Tufts Street property adjacent to the property boundary with the City of Somerville sidewalk. The purpose of the soil sampling was to evaluate concentrations of chlorinated VOCs on the 50 Tufts Street property near the proposed work area for the Tufts Street Reconstruction project.

E.S.8. GLX Project

The MBTA, through its contractor GLX Constructors (GLXC), has substantially completed work to extend MBTA Green Line service to Union Square in Somerville and beyond to College Avenue in Medford. This Green Line Extension (GLX) Project includes significant infrastructure improvements near the Site, including a new pump station, reconstruction of the bridge passing over Washington Street, new train tracks within the MBTA right-of-way (ROW), a new train station, and utility improvements.

The MBTA, GLX Constructors, and their contractors initiated three Release Tracking Numbers (RTNs) related to construction activities undertaken at the site:

- RTN 3-30620: A Special Project Designation (SPD) for the entire project.
- RTN 3-35528: A Utility-related Abatement Measure (URAM) for managing potentially contaminated soil and groundwater associated with installing a stormwater conveyance system within and adjacent to the MBTA ROW, and the demolition and replacement of the existing Washington Street Pump Station.
- RTN 3-34742: A Release Abatement Measure (RAM) for management of CVOC impacted soil encountered during GLX Project activities within Site boundaries.

By 2019, construction activities associated with the GLX Project within the Site boundaries were consolidated under RTN 3-34742. GEI has not been provided with timely information concerning project plans, field work, or MCP submittals by the MBTA and GLXC. GEI has reviewed and evaluated the soil characterization and groundwater data publicly available for RTNs 3-34742, 3-30620, and 3-35528, and analytical results for soil disposal pre-characterization samples collected within the MBTA ROW. The soil characterization data have no impact on the previous risk characterization conclusions or remedial alternatives selected for the Site. However, upon review of the data, GEI made a minor adjustment to the Site boundary in Phase V Status Report No. 17, to include a portion of the MBTA ROW near Cross Street where very low PCE concentrations were detected in soil samples collected for construction purposes. A RAM Completion Report was submitted for RTN 3-34742 in May 2024.

E.S.9. Monitored Natural Attenuation

GEI conducts groundwater sampling once per year at 18 monitoring wells at the Site to confirm that the overburden and bedrock groundwater plumes remain stable. Monitoring wells MW104 and SHMW2 were included in prior annual groundwater sampling events. The wells were destroyed, however, by the MBTA's contractor as part of the GLX Project. On a semi-annual basis, GEI has been monitoring concentration fluctuations in MW122, MW112A, MW121D, and MW118D. Groundwater concentrations measured at these wells have typically been within a range of fluctuation that is consistent with continuing plume stability, particularly when considered in context with prior groundwater results from all monitoring wells. Generally, results from the 18 monitoring wells sampled as part of the MNA program indicate that the groundwater plumes are stable. In April 2024, GEI collected samples from 31 monitoring wells, additional monitoring wells than the historical spring groundwater sampling were included during this year's sampling event.

Concentrations of PCE and TCE in overburden monitoring well MW122 are elevated and have fluctuated over time while downgradient overburden monitoring wells MW118S and MW121S remain non-detect for PCE and TCE. This suggests that the plume remains stable despite increased concentrations at MW122. MW122 is adjacent to 97 Franklin Street. While historical soil vapor and indoor air monitoring at the property did not warrant the installation of an EPMM, GEI conducted indoor air sampling and soil vapor sampling at 97 Franklin Street in June 2024.

GEI collected a groundwater sample from replacement monitoring well MW104R located on the southern portion of the 50 Tufts Street parcel. Original monitoring well MW104 was destroyed during the GLX construction. Concentrations of PCE in MW104R are greater than historical concentrations in destroyed MW104, however, concentrations of TCE are similar. GEI intends to collect another sample from MW104R during the fall groundwater sampling for additional evaluation.

GEI will perform additional groundwater sampling in November 2024.

E.S.10. Remedial Monitoring Report No. 41

Remedial Monitoring Report No. 41, documenting OMM activities of active remedial systems at the Site, is presented in the BWSC-108A and 108B Transmittal Forms in Appendix A.

1. Introduction

On behalf of UniFirst Corporation (UniFirst) of Wilmington, Massachusetts, GEI Consultants, Inc. (GEI) prepared this Phase V Status Report No. 26 and Remedial Monitoring Report (RMR) No. 41 for the site located at 50 Tufts Street in Somerville, Massachusetts (the Site; Fig. 1-1). The Site is identified by Massachusetts Department of Environmental Protection (MassDEP) Release Tracking Number (RTN) 3-23246. The Site includes the 50 Tufts Street property (the Property), other properties in the neighborhoods east and immediately north, south, and west of the Property, and the Michael E. Capuano Early Childhood Center (Capuano Center) located at 150 Glen Street in Somerville, Massachusetts (Fig. 1-2). The Site has been in Remedy Operation Status (ROS) since 2011. This Phase V Status Report No. 26 covers the period from December 16, 2023 to June 15, 2024.

1.1. Contact Information

Entity Undertaking

Response Actions

UniFirst Corporation
68 Jonspin Road
Wilmington, MA 01887

Licensed Site Professional (LSP):

Ileen S. Gladstone, P.E., LSP, LEED AP
Senior Vice President
GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801
781.721.4012
LSP License No. 9719

Entity who will own, operate, and/or maintain the selected Remedial Action Alternative (RAA):

UniFirst Corporation
68 Jonspin Road
Wilmington, MA 01887
978-658-8888

Contact Person

Catherine Malagrida, P.G.
Environmental Compliance Manager
UniFirst Corporation
68 Jonspin Road
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978.658.8888 ext. 0587

1.2. Background

In 2002, a release of chlorinated volatile organic compounds (VOCs) (particularly tetrachloroethylene [also known as perchloroethylene (PCE)], trichloroethylene [TCE], and 1,1,1-trichloroethane [TCA]) to soil and groundwater at the Property was reported to the MassDEP and assigned RTN 3-23246. Three other RTNs were subsequently issued for the Site: 3-24358, 3-24376, and 3-26114. For tracking and reporting purposes, these RTNs have been consolidated under RTN 3-23246.

The detection of chlorinated VOCs in indoor air at some buildings within the Site required the implementation of an Immediate Response Action (IRA). The “Immediate Response Action Plan” associated with RTN 3-23246 was submitted to MassDEP on January 9, 2006. The Site was classified as Tier IC (Permit No. W085813). The “Phase II Comprehensive Site Assessment (CSA), Method 3 Risk Characterization, and Phase III Remedial Action Plan (RAP)” (Phase II/III) for the Site was submitted to MassDEP on July 14, 2008. The “Phase IV Remedy Implementation Plan” (Phase IV RIP) was submitted to

MassDEP on August 10, 2009. The “Immediate Response Action Completion Report and Remedial Monitoring Report No. 11” (IRAC Report) was submitted to MassDEP on November 13, 2009, and the “Immediate Response Action Completion Report Amendment” (IRAC Report Amendment) was submitted to MassDEP on April 1, 2011. The “Phase IV Final Inspection Report, Remedial Monitoring Report No. 15, and Phase V Remedy Operation Status Report,” (Phase IV FIR/Phase V ROS) was submitted to MassDEP on August 4, 2011. The Site was reclassified as Tier II on August 1, 2014.

The Phase II/Phase III identified the following areas of the Site requiring investigation and mitigation:

- The Property.
- The Capuano Center.
- 60 Tufts Street, a 17-unit condominium building north of the Property, and
- Certain residences and commercial buildings located near the Property.

The RAA selected by the Phase III was:

1. Installing Exposure Pathway Mitigation Measures (EPMs) to the extent feasible (e.g. vapor barrier and venting system, or sub-slab depressurization systems [SSDs]), and recording Activity and Use Limitations (AULs) as appropriate, for residences where the soil vapor migration pathway to indoor air has been confirmed, and installing EPMs in occupied commercial buildings to reduce chlorinated VOC concentrations in indoor air to that which constitutes a condition of No Significant Risk (NSR).
2. Continuing to operate the soil vapor extraction (SVE) system at the Property to remove compounds of potential concern (COPCs) from the vadose zone.
3. Conducting a Site-wide Monitored Natural Attenuation (MNA) program to evaluate overburden and bedrock groundwater plume concentrations over time to assess the rate of natural attenuation processes, and to confirm that groundwater concentrations of chlorinated VOCs are generally stable or decreasing.

As part of the IRA, while Site conditions were still under investigation, GEI took timely action to evaluate and implement measures to eliminate or mitigate Critical Exposure Pathways (CEPs) to the extent feasible. The feasibility of such measures was determined by physical conditions, including the suitability of each property to installation of active or passive vapor controls, and by amenability of property owners to provide legal access. Mitigative measures were initially implemented as IRA activities. The Phase II/Phase III assessment and evaluation of RAAs included response actions to address CEPs as part of the recommended Comprehensive Response Action (CRA). With the submittal of the Phase IV RIP, the IRA addressing CEPs was closed with an IRAC Report and IRAC Report Amendment, in accordance with the MCP, particularly 310 CMR 40.0427 (“mitigation of Critical Exposure Pathway(s) is continuing by incorporation of ongoing response actions to address the Critical Exposure Pathway(s) into the Phase IV Remedy Implementation Plan for the disposal site”). Following submittal of the IRAC Report and IRAC Report Amendment, all further response actions were continued under Phase IV and Phase V.

The CRA for the Site includes continued active operation and maintenance of the existing commercial and residential EPMs, the SSDs at the Capuano Center, and the SSDs and SVE system at the Property,

to achieve a Permanent Solution pursuant to 310 CMR 40.0890. It is GEI's opinion that the Site meets the requirements for ROS in accordance with the MCP (310 CMR 40.0893[2]):

- The Phase III RAP was completed on July 14, 2008. The Phase IV RIP was completed on August 10, 2009.
- A final inspection has been performed and confirmed that the CRA has been constructed and implemented in accordance with the Phase IV RIP and is meeting projected design standards to achieve a Permanent Solution.
- Each source of oil and/or hazardous material (OHM) is controlled at the Site. Non-aqueous phase liquid (NAPL) is not visibly present at the Site. Any dense non-aqueous phase liquid (DNAPL) that may be present is not migrating and exists in a stable configuration. The Phase III demonstrated that it is not feasible to eliminate DNAPL at the Site. The dissolved-phase groundwater plumes and vapor plumes are stable and are not causing an increase in concentrations of VOCs in groundwater, soil, soil vapor, or indoor air. There are no unpermitted releases of OHM at the Site.
- Any substantial hazards have been eliminated as documented in the Substantial Hazard Evaluation (SHE) completed by ARCADIS U.S., Inc. (ARCADIS) of Chelmsford, Massachusetts in August 2011. ARCADIS also completed a Site-wide Method 3 Risk Characterization in August 2015, and GEI routinely performs Method 3 risk screening for additional indoor air data collected since 2015. Based on these risk evaluations, and based on the performance of individual EPMMs, a condition of NSR exists for current and future building occupants at each property within the Site.
- GEI has identified the longest duration of a shutdown of each active EPMM (AEPMM) that would be consistent with levels of exposure that do not pose an Imminent Hazard (IH) and poses a condition of NSR.

Construction and implementation of the CRA have been completed; additional activities, such as operation and monitoring of active remedial systems, or installation of new EPMMs, will be conducted under Phase V. The Site will operate in ROS until a Permanent Solution is achieved, except for any portions of the Site that may be closed under Partial Permanent Solution Statements (PSSs) with or without Conditions. Operating the SSDS and SVE systems, together with MNA, will ultimately achieve a Permanent Solution for the Site.

GEI will continue to conduct annual operation, maintenance, and/or monitoring (OMM) activities for installed EPMMs where sufficient indoor air sampling has been conducted, and not repeat indoor air testing, to confirm continued system effectiveness. GEI also conducts groundwater sampling and analysis as part of the MNA program.

1.3. Purpose and Scope

The Site entered Phase V with the submittal of the Phase IV FIR/Phase V ROS on August 4, 2011. In accordance with the MCP (310 CMR 40.0892), this Phase V Status Report No. 26 and RMR No. 41 includes the following information regarding the remedial actions being conducted at the Site:

- A description of the type and frequency of OMM activities.
- A description of any significant modifications made to the OMM activities since the last reporting period.
- An evaluation of the performance of the remedial action during the reporting period, including whether the remedial action is achieving remedial goals specified in the Phase IV RIP as described in 310 CMR 40.0874(3), and a description of any conditions or problems noted during the reporting period that are or may be affecting the performance of the remedial action.
- A description of the measures taken to correct any conditions or problems that may have been encountered during the reporting period.
- The name, license number, signature, and seal of the LSP.

This report covers the period from December 16, 2023 through June 15, 2024. Details of the engineering concepts, design criteria, construction plans, and specifications were previously provided to MassDEP as part of the Phase IV RIP, IRA Status Reports, RMRs, and IRA Plan Modifications and are not revisited in this report.

1.4. Public Involvement (310 CMR 40.1400)

UniFirst and GEI conducted a series of community meetings to inform property owners, residents, and City of Somerville (the City) officials about the Site. GEI will provide copies of this Phase V Status Report No. 26 and RMR No. 41 to the local public document repositories that were established for the Site at the Somerville Central Public Library and at the City of Somerville Clerk's Office.

This report was submitted through eDEP (Transaction No. 1655442) on August 7, 2024. A draft copy of the eDEP Transmittal Form (BWSC-108) is provided in Appendix A.

Copies of property owner notification letters, including notice of sampling letters, chemical testing results letters, and other miscellaneous correspondence sent during the reporting period, are in Appendix B. A table summarizing in-person communication with residences is also included in Appendix B.

2. GLX Project

2.1. Background

The Massachusetts Bay Transit Authority (MBTA), through its contractor GLX Constructors (GLXC), has completed the extension of MBTA Green Line service to Union Square in Somerville and beyond to College Avenue in Medford. The GLX Project included significant infrastructure improvements near and through the Site, including a new pump station, reconstruction of the bridge passing over Washington Street, new train tracks within the MBTA right-of-way (ROW), a new train station, and utility improvements. The MBTA, GLXC, and their contractors initiated three RTNs related to construction activities undertaken at the Site. Chris McDermott of TRC Environmental of Lowell, Massachusetts, a subcontractor to GLXC, is the LSP of Record for GLXC.

2.2. RTN 3-35528

On April 12, 2019, TRC, on behalf of GLXC, filed a Utility-related Abatement Measure (URAM) Plan for managing potentially contaminated soil and dewatered groundwater associated with installing a stormwater conveyance system within and adjacent to the MBTA ROW and the demolition and replacement of the existing Washington Street Pump Station. TRC estimated up to 6,000 cubic yards of soil would be generated under the URAM.

On August 7, 2019, TRC filed a URAM Completion Report for RTN 3-35528. The report stated that 1,950 cubic yards of soil were excavated and managed under the URAM. Some of the soil was stockpiled within the ROW and some was transported offsite and stockpiled at MBTA-owned property at North Point in Cambridge, Massachusetts, and the Vehicle Maintenance Facility (VMF) in Somerville, Massachusetts.

In the URAM Completion Report, TRC states that all future soil originating from the Site and the ROW adjacent to the Site would be managed under a July 2019 RAM Plan for RTN 3-34742, and that all disposal documentation related to soil, sediment and granulated activated carbon (GAC) change outs would be submitted in Release Abatement Measure (RAM) Status Reports for RTN 3-34742.

2.3. RTN 3-34742

On January 23, 2018, MBTA filed a Release Notification Form (RNF) for concentrations of PCE detected in the wet well within the pump station located at 132 Washington Street. MassDEP issued RTN 3-34742. On April 25, 2019, MassDEP issued MBTA a Notice of Noncompliance for failure to submit a Permanent Solution Statement, Tier Classification Submittal, or Downgradient Property Status (DPS) Submittal within one year of the RNF. In June 2019, Weston & Sampson, on behalf of MBTA, filed a DPS Submittal attributing conditions reported in the RNF to the Site.

2.3.1. Release Abatement Measure

On July 11, 2019, TRC, on behalf of GLXC, filed a RAM Plan under RTN 3-34742 for management of CVOC impacted soil encountered during GLX Project activities within Site boundaries. According to TRC, up to 14,000 cubic yards of CVOC impacted soil were to be managed under this RAM, inclusive of the soil that was originally identified in the URAM for RTN 3-35528. TRC conducted in-situ soil sampling along the MBTA ROW behind the 50 Tufts Street building. Concentrations of PCE were detected up to 14 ppm.

TRC, on behalf of GLXC, filed nine RAM Status Reports between November 2019 and November 2023 and a RAM Completion Report on May 7, 2024. A summary of the volume of remediation waste disposed off-site during each Status Report reporting period is summarized in Table 2-1 along with the totals reported in the RAM Completion Report. The total cubic yard for each facility based on the summation from the Status Reports and reported in the RAM Completion likely do not agree based on the estimating the number of cubic yards per ton. This estimate is based on a uniform conversion of 1.7 tons per cubic yards which is likely variable.

All soil disposed off-site prior to April 3, 2020, was disposed of as a listed hazardous waste regardless of the concentration of PCE and TCE in the soil and no effort was made by TRC, GLXC or the MBTA to reclassify the soil as non-hazardous waste by requesting a Contained-In Determination from MassDEP. A substantial amount of soil excavated after February 2020 was which would have been classified as hazardous waste was reclassified with Contained-In Determinations (Section 2.5).

The RAM Completion Report also summarizes the groundwater treatment and discharge activities conducted as part of the RAM. Groundwater management was conducted between April 25, 2019, and August 31, 2020. During May 2019 sampling, PCE was detected exceeding effluent limits; corrective actions included refreshing the granular activated carbon. As part of system deactivation, a total of 48.87 tons of solid hazardous waste was transported to Michigan Disposal Treatment Plant in Bellville, MI; additionally, 400 pounds, consisting of spent filter bags and accumulated soil, was transported to Wayne Disposal, Inc., in Bellville, MI.

2.4. Vehicle Maintenance Facility (VMF) Contained-in-Determinations

Soil potentially containing hazardous wastes from RTN 3-34742 was used by GLXC during the construction of a clean soil cap at the GLX's VMF, outside the boundaries of RTNs 3-34742 and 3-23246. Construction of the cap began in 2018, primarily consisting of soil brought to the VMF from other parts of the GLX project, but included soil brought from RTN 3-35528 in July 2019. GLXC transported and disposed of soil from RTN 3-34742 likely known to be contaminated with PCE, to the VMF since the concentrations of PCE were less than site-specific acceptance criteria consistent with the MassDEP's "Similar Soils" guidance. However, GLXC did not consider at that time the soil was potentially a listed hazardous waste.

Subsequently, in October 2020, soils were generated from within the VMF cap during grading and utility excavation activities and were stockpiled. The stockpiled soils were sampled, and concentrations of PCE and TCE were detected above the laboratory reporting limits but below the applicable MCP Method 1 S-1/GW-1 standards for a Contained-In Determination.

On February 21, 2021, GLXC prepared the first of four Contained-In Determinations (February 26, April 8, April 26, and June 30, 2021) for soils stockpiles generated during cap regrading and utility installation at the VMF. It is unknown if the soils were reused on the VMF site or disposed off-site.

2.5. Right-of-Way Contained-in Determinations

TRC prepared sixteen Contained-In Determinations for soil generated near the Washington Street Pump Station and on the MBTA ROW. Soil included in the Contained-In Determination exhibited concentrations of PCE above the laboratory reporting limits but below the applicable MCP Method 1 S-1/GW-1 standard. A summary of the Contained-In Determinations is in Table 2-2.

2.6. RTN 3-30620

The GLX Project was issued a Special Projects Designation (SPD) in 2011. A RAM Plan was submitted in for the management of soil and groundwater on numerous MCP disposal sites across the GLX Project in 2015. On July 18, 2019, TRC, on behalf of GLXC, filed RAM Status Report No. 7, that included activities associated with RTN 3-23246, the 50 Tufts Street Site. According to TRC, approximately 5,440 cubic yards of soil were excavated from within the Site boundary as part of GLX Project activities conducted under the SPD. The Status Report also explained that a separate RAM Plan had been submitted to MassDEP under RTN 3-34742 for work within the disposal site boundary of RTN 3-23246 and that details regarding soil management, for the current stockpiles and future construction activities, within the boundary of RTN 3-23246 will be provided in RAM submittals for RTN 3-34742.

2.7. Soil Characterization Data from MBTA ROW and Washington Street

Between May 2010 and September 2023, soil samples were collected by Kleinfelder of Cambridge, Massachusetts, on behalf of the MBTA, or TRC, on behalf of GLXC to characterize soil for off-site disposal within the MBTA right of way (ROW), including Washington Street. The date of sampling and the reference location where the sampling is documented is in Table 2-3. The ROW sample locations are on Fig. 2-1, and a summary of the soil analytical results are in Appendix C.

3. Current Conceptual Site Model and Disposal Site Boundary

As defined in the MCP, the Conceptual Site Model (CSM) is a “dynamic framework for assessing site characteristics and risk, identifying and addressing data gaps and managing uncertainty, eliminating or controlling contaminant sources, developing and conducting response action strategies, and evaluating whether those strategies have been effective in achieving desired endpoints.” (310 CMR 40.0006). GEI has developed and continued to update the CSM for the Site as appropriate based upon the investigation data documented in previous reports, including the Phase II Comprehensive Site Assessment, Immediate Response Action (IRA) Plan and Status Reports, the Phase IV Remedy Implementation Plan (RIP), and prior Phase V Remedy Operations (ROS) Status Reports. In Phase V Status Report No. 17, GEI updated the CSM and Disposal Site Boundary to include a portion of the MBTA ROW near Cross Street where de minimis PCE concentrations were detected in soil samples collected for construction purposes.

4. Data Collection

4.1. Groundwater Sampling

GEI conducted semi-annual groundwater sampling in April 2024. Historical annual sampling in the spring typically included 18 monitoring wells; an additional 13 monitoring wells were added for a total of 31 monitoring wells in this year's sampling event. The additional samples were collected to update the current understanding of sitewide groundwater conditions, in part because the 2024 revisions to the MCP, which are effective on March 1, 2024, reduced the Method 1 GW-2 standard for PCE from 50 micrograms per liter ($\mu\text{g/L}$) to 20 $\mu\text{g/L}$.

The groundwater samples were analyzed by Alpha Analytical (Alpha) or Westborough, Massachusetts for VOCs, and as applicable Monitoring Natural Attenuation (MNA) parameters. A summary of all GEI groundwater sampling activities at the Site, including dates of sampling during this reporting period, is in Table 4-1. The groundwater testing results are summarized in Table 4-2, along with groundwater data from previous investigations. Groundwater sampling conducted on behalf of the MBTA between 2012 and 2014 by Kleinfelder, and in 2020 by TRC, as part of the GLX Project is summarized in Table 4-3.

Monitoring well locations and the monitoring wells sampled by GEI during this reporting period are shown in Fig. 4-1. The laboratory data report associated with the April 2024 groundwater testing is in Appendix D.

4.2. Comparison of PCE Concentrations to GW-2 Standards

Fig. 1-2 presents the disposal site boundary, based on laboratory analytical results for environmental samples collected through April 2024. Fig. 1-2 also delineates the areas in which concentrations of PCE in shallow groundwater (i.e., 15 feet or less) exceed current Method 1 GW-2 standards (20 $\mu\text{g/L}$), based on Site-wide groundwater sampling results through April 2024. This is not significantly different from the extent of PCE in shallow groundwater exceeding the recently revised GW-2 standard (50 $\mu\text{g/L}$).

The delineation of the plumes in Fig. 1-2 excludes the April 2024 sampling results from MW104R. Monitoring well MW104R was installed as a replacement well for MW104 in 2022 which was destroyed by MBTA construction activities. During the April 2024 groundwater sampling event, concentrations of PCE in MW104R (2,200 $\mu\text{g/L}$), were substantially greater than observed in the destroyed MW104 (less than 20 $\mu\text{g/L}$ since 2009). GEI will be evaluating this significant change in groundwater concentrations at this location and as discussed in Section 4.7, GEI is evaluating long term flow trends in this portion of the site.

Since 2006, GEI has conducted extensive sub-slab soil vapor and indoor air testing at the properties within the Site including where PCE in shallow groundwater exceeds 20 $\mu\text{g/L}$, except for 159 Glen Street, where the owner has been unresponsive to access request letters and property visits seeking access to conduct sampling. We do not anticipate that additional investigation will be required in response to the updated Method 1 GW-2 standard for PCE.

4.2.1. Groundwater Plume Stability

Based on historical groundwater sampling conducted since 2006, the nature and extent of groundwater contamination at the Site has been well-characterized. The localized increase in the PCE concentration in the groundwater collected from MW104R compared to MW104 will be further evaluated but is unlikely to be affecting overall plume stability. In addition, groundwater analytical results are incorporated into the MNA program to support the plume stability monitoring and natural attenuation evaluation, as discussed in Section 9.

4.3. Soil Vapor Sampling

From January 2006 through June 15, 2024, GEI collected soil vapor samples at 58 residences and commercial buildings. Fig. 4-2 shows buildings where GEI conducted soil vapor sampling. The procedure for collecting soil vapor samples was in IRA Status Report No. 3. Samples typically were collected from below the basement slab.

During this reporting period, GEI collected sub-slab samples from two residential properties (31 Tufts Street and 97 Franklin Street) and from one mixed-use property (103 Washington Street). The property at 31 Tufts Street is new residential development. The property at 97 Franklin Street is a single-family home. The property at 103 Washington Street is a new development replacing an auto repair shop. The building is a mixed-use development with commercial space and open-air parking on the first floor and residential units above.

The sub-slab soil vapor samples were submitted to Alpha for laboratory analysis by EPA Method TO-15 with the following modified list of analytes:

- 1,1-Dichloroethane
- 1,1-Dichloroethylene (1,1-DCE)
- trans-1,2-Dichloroethylene
- cis-1,2-Dichloroethylene
- 1,1,1-Trichloroethane (TCA)
- 1,1,2,2-Tetrachloroethane
- 1,1,2-Trichloroethane
- Tetrachloroethylene (PCE)
- Trichloroethylene (TCE)
- Vinyl Chloride

The sub-slab soil vapor testing results are in Table 4-4 (31 Tufts Street), Table 4-5 (97 Franklin Street), and Table 4-6 (103 Washington Street). The laboratory data report is in Appendix D.

4.3.1. Soil Vapor Sampling – Checklists and Methods

GEI collected sub-slab soil vapor samples from 31 Tufts Street, 97 Franklin Street, and 103 Washington Street. Sub-slab soil vapor samples were collected to evaluate the concentrations of chlorinated VOCs in soil vapor beneath the buildings. GEI collected soil vapor samples using SUMMA® canisters and regulators provided by Alpha. Each canister was certified clean. Copies of the certifications are in Appendix D. The soil vapor samples were collected over a 1-hour period.

Flow regulators were attached to the SUMMA® canisters at the location of the testing. The laboratory-set flow regulator was then turned on, and the starting pressure and time recorded. The regulator was turned

off before reaching ambient pressure, and the final pressure and time were recorded. Sub-Slab Monitoring Point Installation Log, Pre-Sampling Checklists, and Sub-Slab Sampling Checklists completed for the sub-slab soil vapor samples collected during this reporting period are in Appendix E.

4.3.2. Soil Vapor Sampling – Results

- 31 Tufts Street – On January 31, 2024, two soil vapor samples from the previously installed sub-slab monitoring points were collected from beneath the building slab. Concentrations of PCE were detected above laboratory reporting limits. PCE was detected at concentrations of 31.5 µg/m³ and 77.3 µg/m³, in SV1 and SV2, respectively. Additionally, cis-1,2-DCE (0.270 µg/m³), TCA (9.82 µg/m³), and TCE (2.42 µg/m³) were detected in SV2 and 1,1,1-TCA (0.786 µg/m³) was detected in SV1. Concentrations of chlorinated VOCs in soil vapor are below the applicable residential Screening Values.
- 97 Franklin Street – On May 24, 2024, two soil vapor samples from the previously installed sub-slab monitoring points were collected from beneath the building slab. Concentrations of PCE were detected above laboratory reporting limits. PCE was detected in both samples at 1.31 µg/m³ and 6.16 µg/m³ in SS1 and SS2, respectively. TCE was detected in SS2 at a concentration of 0.150 µg/m³. TCA was detected in SS2 at a concentration of 0.136 µg/m³. Concentrations of chlorinated VOCs in soil vapor are below the applicable residential Screening Values.
- 103 Washington Street – On March 5, 2024, two soil vapor samples from the previously installed sub-slab monitoring points were collected from beneath the building slab. Concentrations of PCE were detected above laboratory reporting limits. PCE was detected in both locations, SV1 and SV2, at 0.210 µg/m³ and 40.9 µg/m³, respectively. TCE was detected in SV2 at a concentration of 37.6 µg/m³. The concentration of cis-1,2-DCE was 12.2 µg/m³ and the concentration of trans-1,2-DCE was 2.24 µg/m³ in SV2. The concentration of TCE in SV2 is greater than the applicable Screening Value.

4.4. Indoor Air Sampling

From January 2006 through December 15, 2023, GEI collected indoor air samples at 75 residences and commercial buildings. Fig. 4-2 shows buildings where GEI conducted indoor air sampling. The procedure for collecting indoor air samples was in IRA Status Report No. 3. Samples are typically collected from the basement and first floor of each building.

Between June 16, 2022 and June 15, 2024, GEI collected indoor air samples at 31 Tufts Street, 97 Franklin Street, and 103 Washington Street. The indoor air samples were submitted to Alpha for laboratory analysis by EPA Method TO-15 with the following modified list of analytes:

- | | |
|----------------------------------|-----------------------------|
| • 1,1-Dichloroethane | • 1,1,2,2-Tetrachloroethane |
| • 1,1-Dichloroethylene (1,1-DCE) | • 1,1,2-Trichloroethane |
| • trans-1,2-Dichloroethylene | • Tetrachloroethylene (PCE) |
| • cis-1,2-Dichloroethylene | • Trichloroethylene (TCE) |
| • 1,1,1-Trichloroethane (TCA) | • Vinyl Chloride |

The recent and historical indoor air testing results are in Table 4-7 (31 Tufts Street), Table 4-7 (97 Franklin Street) and Table 4-9 (103 Washington Street). The laboratory data report is in Appendix D.

4.4.1. Indoor Air Sampling – Checklists and Methods

GEI collected indoor air samples from 31 Tufts Street, 97 Franklin Street, and 103 Washington Street. The indoor air samples were collected to evaluate if there was likely a complete vapor intrusion pathway in the buildings' occupied space. The samples were collected using SUMMA® canisters and regulators provided by Alpha. Each canister was certified clean by Alpha. Copies of the certifications are in Appendix D. The indoor air samples were collected over an approximately 24-hour period.

Flow regulators were attached to the SUMMA® canisters at the location of the testing. The SUMMA® canisters were placed so that the air inlet was approximately 3 to 5 feet above the floor. The laboratory-set flow regulator was then turned on, and the starting pressure and time were recorded. The regulator was turned off before reaching ambient pressure, and the final pressure and time were recorded. Pre-Sampling Checklists and Indoor Air Sampling Checklists completed for each indoor air sample collected during this reporting period are in Appendix E.

4.4.2. Indoor Air Sampling – Results

- 31 Tufts Street – On January 31, 2024, three indoor air samples were collected on the first floor in two units and the utility room. PCE was not detected above the laboratory reporting limits in any of the samples collected. Trans-1,2-dichloroethylene (trans-1,2-DCE) was detected in IA1 (collected from Unit 1) at a concentration of 0.103 µg/m³. Concentrations of trans-1,2-DCE is below the residential Threshold Value (TV). No other chlorinated VOCs were detected in the samples at concentrations above the laboratory reporting limits.
- 97 Franklin Street – On May 24, 2024, one indoor air sample was collected on the first floor, one indoor air sample was collected on the second floor, and one indoor air sample was collected in the basement. PCE was detected in the basement sample at a concentration of 1.72 µg/m³ and in the first-floor sample at a concentration of 0.522 µg/m³. PCE was not detected in the sample collected from the second floor. Additionally, TCE was detected in the basement at a concentration of 0.489 µg/m³, in the first-floor sample at a concentration of 0.167 µg/m³, and in the second-floor sample at a concentration 0.150 µg/m³. TCA was detected in the basement sample at concentration of 0.091 µg/m³. Concentrations of PCE and TCE in the basement are greater than the applicable TVs, however, concentrations do not exceed TVs on the first and second floors. The basement at 97 Franklin Street is not considered living or working space because it is used for laundry and storage; therefore, the exceedance of the TVs for PCE and TCE are not Critical Exposure Pathways (CEPs).
- 103 Washington Street – On March 5, 2024, one indoor air sample was collected on the first floor and one indoor air sample was collected in the basement. The first floor is commercial or ancillary space associated with residences on the second floor. PCE was detected in the basement sample at a concentration of 0.325 µg/m³ and was not detected in the first-floor sample. The concentrations of PCE is below the residential TV. No other chlorinated VOCs were detected in the samples.

4.5. Meteorological Conditions

Measurements were taken with a portable barometer and thermometer during soil vapor sampling at and were recorded on the Indoor Air and Sub-Slab Sampling Checklists (Appendix E). Meteorological conditions recorded during indoor air sampling events for this reporting period are summarized in Table 4-10.

4.6. Boring and Monitoring Well Installation

On March 18, 2024, GEI observed Northern Drill Service, Inc. of Northborough, Massachusetts (Northern) install two soil borings completed as monitoring wells (MW203R and SH-MW2R). MW203R is located along the unpaved hillslope parallel to Tufts Street and SH-MW2R is located within the paved parking lot adjacent. The borings were installed as replacement monitoring wells which were destroyed during the GLX construction project. The borings were installed using hollow stem auger and standard sampling.

Soil samples collected from the borings were continuously logged (lithology and physical observations) in accordance with the USCS guidelines. Field screening for VOCs in the jar headspace for soil samples was performed with a PID equipped with a 10.6 eV lamp. PID field screening results are summarized on the boring logs in Appendix F. Jar headspace screening results ranged from 0.6 to 1,028 ppm.

The borings were advanced to a depth of 23 feet. Monitoring well MW203R was installed with a well screen interval from 13 to 23 feet and monitoring well SH-MW2R was installed with a well screen interval from 10 to 23 feet. The monitoring wells were constructed of 2-inch diameter PVC.

4.7. Hydraulic Flow Data Loggers

GEI installed vented Level TROLL 500 Data Loggers in MW104R on December 27, 2023, and MW203R and SH-MW2R on April 12, 2024. GEI installed replacement well MW104R in May 2022. The data loggers were installed to evaluate long term groundwater flow trends in this portion of the Site, which was heavily influenced by the GLX construction. GEI has downloaded the data approximately every four weeks and will continue to monitor groundwater elevations monthly. Between April 21 and May 7, 2024, the transducer in MW203R was above the height of the groundwater table; when GEI collected data on May 7, the transducer was lowered in the well. Hydrographs for the three monitoring wells are included in Appendix G.

5. Capuano Center

5.1. Background

The mitigation system at the Capuano Center is an SSDS with 18 sub-slab extraction points in six classrooms of the east wing. The interior slab/exterior wall joints of the six classrooms were sealed with a flexible epoxy sealant and extraction points were installed horizontally through the exterior wall. GEI began operating the SSDS on February 1, 2007.

The system sub-slab vapor extraction points are attached to three collection headers in exterior underground trenches, which are connected to three dedicated discharge pipes with radon fans for each collection header above the roofline of the Capuano Center. Remote telemetry on the system consists of two radio nodes and three pressure switches connected to the three radon fans to send notification of a system shut down remotely to the wireless remote monitoring hub located at the Property.

The system does not include off-gas treatment. Based upon the measured flow rate and VOC concentrations, the annual discharge rate of VOCs from the system has been significantly less than 100 lbs per year; therefore, no off-gas treatment is required per MassDEP Policy No. WSC-94-150: "Off-gas Treatment of Point-Source Remedial Air Emissions," dated 1994.

5.2. Remedial Objectives

The design objectives of the Capuano Center mitigation system were to:

- Eliminate or mitigate, to the extent feasible, the potential soil vapor migration pathway to indoor air.
- Achieve a condition of NSR for occupants of the Capuano Center.

The SSDS monitoring data show that the sub-slab vacuum field generated by the SSDS influences the southern portion of the east wing. In conjunction with the physical sealing of the slab/wall joint, this indicates the soil vapor migration pathway to indoor air is controlled by the system.

5.3. Inspection and Monitoring

The system has been monitored in accordance with the requirements and schedule in the Phase IV RIP, and in accordance with the requirements and schedule presented in subsequent Phase IV Status Reports, and the Phase IV FIR/Phase V ROS.

Monitoring of the system was historically performed monthly; however, once telemetry was installed on the system, GEI began performing quarterly monitoring in July 2015. Monitoring of system parameters at the headers (flow rate, vacuum, and photoionization detector [PID] readings) and PID readings at outdoor monitoring points are conducted quarterly. Inspection and monitoring at the Capuano Center were performed twice from December 2023 to June 2024. A summary of monitoring activities conducted during this reporting period is in Table 5-1 and the Field Monitoring Forms are in Appendix H.

5.4. System Modifications

GEI was notified by the telemetry system of the shutdown of the fan installed in Manifold 12 on June 23, 2023. Following an investigation of the fan's performance, a new fan was ordered and installed on August 24, 2023. Following system start up, GEI received an alert from the telemetry system that the fan was running.

5.5. Performance Efficiency and Effectiveness

GEI has completed 24 rounds of indoor air sampling in the Capuano Center. The results of each round of sampling show that the system is meeting remedial design objectives (Table 5-2). Based on the indoor air testing results, and regularly collected system performance data, the soil vapor migration pathway to indoor air has been eliminated and a condition of NSR has been achieved for occupants of the Capuano Center. GEI has discontinued indoor air sampling and relies on monitoring of operating parameters for the system to confirm continued effectiveness.

5.6. Management of Waste Materials

Infrequently, condensate in system piping may accumulate in the subsurface collection header pipes, or the cleanout drain for the header pipes. If observed, SSDS condensate will be pumped from the headers into the cleanout, which drains into the subsurface at the property.

5.7. Future Phase V Activities

Based on indoor air testing results, a condition of NSR has been achieved for occupants of the Capuano Center and the system is achieving the remedial design objectives. Since remote telemetry is now installed on the system, GEI will continue to monitor operational parameters and sub-slab conditions for the system (e.g., flow rate, vacuum), and collect readings from all outdoor monitoring points quarterly, to confirm ongoing system performance. GEI discontinued monitoring at interior monitoring points in April 2016, and instead relies on vacuum monitoring at exterior monitoring points to evaluate system effectiveness. During monitoring events, GEI will also perform maintenance tasks, which may include draining accumulated water from the collection headers and correcting any issues observed during routine inspection of system components.

5.7.1. Longest Allowable Duration of AEPMM Shutdown

An operating regime and OMM plan for the Capuano Center AEPMM were included in the Phase IV FIR/Phase V ROS submitted on August 4, 2011. In accordance with the MCP (310 CMR 40.1026[3][e]), and as presented in Status Report No. 7 and RMR No. 22, the longest duration of a shutdown that would be consistent with a level of exposure that does not pose an IH and that poses NSR is 6 years for the Capuano Center system.

5.7.2. Regulatory Closure

As discussed further in Section 6.6, a Permanent Solution with Conditions can be achieved for properties where an AEPMM has achieved the remedial objectives, an AUL has been recorded for the property, and

telemetry is installed. A Partial Permanent Solution with Conditions Statement may be submitted to achieve regulatory closure for the Capuano Center if the owner of the property, the City of Somerville, executes an AUL.

6. Residential and Commercial Properties

6.1. 103 and 105 Washington Street

The properties at 103 and 105 Washington Street have been redeveloped into mixed-use commercial and residential buildings by the same entity without the installation of an EPMM and GEI has been evaluating the likelihood of a complete vapor intrusion pathway.

6.1.1. 103 Washington Street

The building at 103 Washington Street, formerly an automobile repair shop, was demolished around March 2019. The former AEPMM was deactivated in May 2017 when the building was vacated. 103 Washington Street has been redeveloped as a mixed-use development with commercial space and open-air parking on the first floor and residential units above. GEI reached out numerous times to the developer regarding installing a vapor mitigation system at 103 Washington Street. The developer did not agree to installation of a system, although they did consent to soil gas and indoor air testing. As of February 2024, construction is complete, and the building is occupied. GEI has conducted indoor air and sub-slab soil vapor sampling in May 2023, July 2023, and March 2024 as discussed in Section 4.

In May 2023, GEI conducted sub-slab soil vapor sampling in the basement, and indoor air sampling in the first-floor commercial space. Concentrations of PCE and TCE were detected above the residential sub-slab soil vapor screening value in one sample but below the commercial screening value. The indoor air sample collected on the first floor did not exceed commercial or residential TVs.

In July 2023, GEI conducted sub-slab soil vapor sampling in the basement, and indoor air sampling in the basement and first floor commercial space. Concentrations of TCE were detected above the commercial sub-slab soil vapor screening value in one sample. Concentrations of PCE in the same sample exceeded the residential sub-slab soil vapor screening value. Concentrations of trans 1,2-DCE, PCE, and/or TCE in indoor air samples collected on the first floor and basement were detected above residential TVs, however they were not above commercial TVs. The first floor is commercial space or open-air parking with residential units above.

In March 2024, concentrations of TCE were detected above the commercial sub-slab soil vapor screening value in one sample. Concentrations of cis-1,2-DCE, trans-1,2-DCE, and PCE in the same sample were greater than the laboratory reporting limit but less than the residential sub-slab soil vapor screening value. Concentrations PCE in the indoor air sample collected from the basement were greater than the reporting limits, but less than residential TVs; no other chlorinated VOCs were detected in the basement or first floor samples. Additional sampling will be conducted in the winter 2024/2025.

6.1.2. 105 Washington Street

The building at 105 Washington Street, formerly a multi-family house, was demolished between March and June 2019 and construction on the development began in July 2019. As of June 2022, construction

was complete, and the building is occupied. 105 Washington Street is a mixed-use development with commercial space and open-air parking on the first floor and residential units above.

GEI conducted sub-slab soil vapor sampling at 105 Washington Street prior to the completion of the building in August 2021. The concentration of PCE in the soil vapor samples ($133 \mu\text{g}/\text{m}^3$ and $110 \mu\text{g}/\text{m}^3$) exceeded the MassDEP residential soil vapor screening values ($98 \mu\text{g}/\text{m}^3$) for PCE. Therefore, GEI conducted indoor air and sub-slab soil vapor sampling in March 2022, February 2023, and May 2023 once the building was completed. Concentrations of VOCs were not detected above the MassDEP residential soil vapor screening values, or the residential indoor air Threshold Values (TVs) following completion of the building indicating that the vapor intrusion pathway is unlikely to be of concern under current or future conditions. Additional sampling is not planned for 105 Washington Street.

6.2. EPMM Status

Through June 15, 2024, EPMMs have been installed or are being installed at 24 residential and commercial properties. Fig. 6-1 shows the buildings with EPMMs installed. Table 6-1 presents the as-built design information for each installed EPMM. EPMMs were also installed at 50 Tufts Street, 60 Tufts Street, and the Capuano Center. The EPMMs at 50 Tufts Street, 60 Tufts Street, and the Capuano Center are discussed separately in this report.

Currently EPMMs are relied upon to meet the remedial objectives at 20 properties and are not being relied on at the following:

- The EPMM at 103 Washington Street, as discussed in Section 6.1.1, was abandoned when the building was vacated and then demolished as part of redevelopment. The redevelopment of the mixed-use building at 103 Washington Street did not include an EPMM because the new owner declined offers to include one.
- An EPMM was installed at 163 Glen Street when the former American Legion Post building was redeveloped as multi-family housing. It was later demonstrated that the EPMM was not required based on sub-slab soil gas sampling results that were below residential sub-slab soil gas screening levels.
- The EPMM at 10 Morton Street has been temporarily removed during building renovation activities. A new EPMM is being installed during renovation, as discussed in Section 6.4.1.1.
- An EPMM is in the process of being installed at 121 Washington Street, a mixed-use building with retail space on the ground floor and residences above but is not yet complete, as discussed in Section 6.5.3.1.

The EPMM designs are categorized as Option 1, Option 2, Option 3, or Option 4, as conceptually defined below:

- Option 1 – SSDS: This option includes the installation of one or more sub-slab vapor extraction points and a collection piping network connected to an electric fan located outside the building envelope. The fan is equipped with a condensate bypass drain and the fan exhaust is discharged above the eave line of the roof. To date, no SSDSs (except for the system at the Property) require off-gas treatment. This option is installed in buildings with adequate sub-slab air flow and a

competent concrete slab, or those properties where vapor barrier and venting systems are infeasible.

- **Option 2 – Vapor Trench:** The vapor trench option is a sub-slab venting system installed in a shallow trench around the interior basement perimeter, cement stucco applied to the walls, and an epoxy vapor barrier applied to the slab and stucco walls. The trench is backfilled with crushed stone and finished with approximately three inches of new concrete to meet the existing slab surface. This option is installed in buildings with poor sub-slab air flow, a competent concrete slab, and a fieldstone and/or brick foundation. Sub-slab vapors are vented through a piping network that exits the building envelope at the sill elevation and terminates above the eave line of the roof.
- **Option 3 – New Slab:** The new slab installation option is a new concrete slab, a sub-slab vapor barrier, and a floor venting system; applying cement stucco to the walls; and applying an epoxy vapor barrier to the new slab and stucco walls. This option is installed in buildings with poor sub-slab air flow, an incompetent concrete slab, and a fieldstone and/or brick foundation. As with Option 2, sub-slab vapors are vented through a piping network that exits the building envelope at the sill elevation and terminates above the eave line of the roof.
- **Option 4 – Passive Vapor Mitigation in New Construction:** This option has been installed in new construction buildings. A sub-slab venting system installed in gravel with riser pipes through the roof, a sub-slab vapor barrier, and new concrete floor. This option can be converted to an active system.

The decision-making process for selecting a conceptual design based on Site-specific conditions is illustrated in Fig. 6-2. Table 6-1 identifies the design option for each EPMM currently installed and the primary engineering components of each.

6.2.1. Remedial Objectives

The design objectives of the EPMMs were to:

- Eliminate or mitigate, to the extent feasible, the potential soil vapor migration pathway to indoor air in residential buildings.
- Achieve a condition of NSR for occupants of the residence or commercial building.

6.3. Option 1 EPMMs (SSDS)

Option 1 EPMMs consist of active sub-slab depressurization achieved by the installation of a radon fan and associated network of piping. Several of the Option 1 EPMMs were originally installed as Option 2 or Option 3 EPMMs; however, the concentrations of PCE measured in the post-installation indoor air did not constitute a condition of NSR, and a fan was installed. Option 1 EPMMs have been installed at the following 10 properties:

- 35-37 Knowlton Street (originally Option 3)
- 31-33 Knowlton Street

- 13 Morton Street
- 18 Morton Street
- 23 Tufts Street
- 103 Washington Street (deactivated May 31, 2017)
- 95 Franklin Street (originally Option 2)
- 9 Knowlton Street
- 13 Knowlton Street
- 27 Tufts Street (originally Option 3)

Prior to the MCP amendments effective June 20, 2014, these properties could not achieve a Permanent Solution because of the operation of an active system. These properties can now achieve regulatory closure with a Partial PSS with Conditions, provided that the property owner executes an AUL. The condition associated with the PSS would be operation and maintenance of the AEPMM in accordance with the AUL.

6.3.1. Operation and Monitoring

To confirm the performance of an EPMM, indoor air samples are collected shortly after installation is complete. As identified in the Phase IV FIR/Phase V ROS for Option 1 EPMMs, following the initial post-installation indoor air sampling, indoor air samples were collected one time per winter for two consecutive years. In accordance with MassDEP guidance, “WSC No. 16-435: Vapor Intrusion Guidance: Site Assessment, Mitigation and Closure,” dated October 14, 2016 (2016 VI Guidance), GEI modified the post-installation indoor air sampling for newly installed Option 1 EPMMs to demonstrate effectiveness. Once a pressure differential has been established, one round of indoor air sampling is performed during the heating season. The samples are analyzed for Site-specific chlorinated VOCs. Following one round of indoor air sampling, differential pressure across the slab will be used to demonstrate system effectiveness.

Inspection and monitoring also includes measuring VOCs at sub-slab sampling points with a PID, collecting pressure measurements using a manometer, and inspecting system components. If needed, repairs or modifications will be scheduled.

A summary of OMM activities performed for Option 1 EPMMs during this reporting period is in Table 6-2. During this reporting period GEI conducted EPMM inspections at 31-33 Knowlton Street. GEI has been unable to access 35-37 Knowlton Street, however, according to real estate records the property was sold in May 2023. GEI is attempting to contact the new owner of the property to continue inspections. EPMM Inspection Forms are in Appendix I.

6.3.2. EPMM Shutdown

Based on focused Method 3 risk characterization calculations performed by ARCADIS, which incorporate pre-EPMM indoor air sampling results, several Option 1 EPMMs at the Site may not be required to

maintain a condition of NSR. This is a result of the updated MassDEP toxicity characterization for PCE issued in January 2014.

6.3.2.1. AEPMM Closure Testing at 13 Knowlton Street

On November 1, 2016, a shutdown valve was installed on the SSDS riser pipe at 13 Knowlton Street. To simulate conditions without operation of the AEPMM, the SSDS fan was turned off and the shutdown valve was closed, for one week, prior to collecting soil vapor and indoor air samples in December 2016, February 2018, March and November 2019, and January 2023.

After the indoor air and soil vapor sampling was completed, the shutdown valve was opened, and the fan was reactivated. Based on the results of the Option 1 EPMM closure sampling, GEI will evaluate the need for an AEPMM to achieve a condition of NSR at 9 Knowlton Street based on a Method 3 Risk Characterization.

6.3.2.2. AEPMM Closure Testing at 9 Knowlton Street

On May 11, 2022, a shutdown valve was installed on the SSDS riser pipe at 9 Knowlton Street. To simulate conditions without operation of the AEPMM, the SSDS fan was turned off and the shutdown valve was closed, for six weeks, prior to collecting soil vapor and indoor air samples in June 2022. The SSDS fan was turned off and the shutdown valve was closed, for one week, prior to collecting additional rounds of soil vapor and indoor air samples in January and March 2023.

After the indoor air and soil vapor sampling was completed, the shutdown valve was opened, and GEI requested that the owner reactivate the fan. Based on the results of the Option 1 EPMM closure sampling, GEI will evaluate the need for an AEPMM to achieve a condition of NSR at 9 Knowlton Street based on a Method 3 Risk Characterization.

6.3.3. Longest Allowable Duration of AEPMM Shutdown

An operating regime for residential AEPMMs was included in the Phase IV FIR/Phase V ROS submitted on August 4, 2011, which included an OMM plan for the systems. In accordance with the MCP (310 CMR 40.1026[3][e]), and as presented in Status Report No. 7 and RMR No. 22, the following exposure durations were calculated for Option 1 EPMMs where pre-EPMM indoor air data were available:

- 13 Knowlton Street: 54 years
- 23 Tufts Street: 11 years
- 27 Tufts Street: 25 years
- 31-33 Knowlton Street: 31 years
- 35-37 Knowlton Street: 4 years

Several Option 1 EPMMs were installed based on sub-slab soil vapor results, and pre-EPMM indoor air data are not available (including 13 Morton Street, 18 Morton Street, 95 Franklin Street, 103 Washington Street, and 9 Knowlton Street). However, based on the proximity of the AEPMMs throughout the Site, the shutdown exposure durations calculated for the properties with pre-AEPMM indoor air data are

likely representative of the AEPMM properties with no pre-AEPMM indoor air data. Therefore, the longest duration of shutdown that would be consistent with a level of exposure that does not pose an IH and that poses NSR at these properties is likely between 4 and 54 years.

6.3.4. Efficiency and Effectiveness

For residential buildings, the primary goals for EPMM performance are the reduction of chlorinated VOC concentrations in indoor air to below residential TVs to the extent feasible, and if that is not feasible, to achieve a condition of NSR. For commercial buildings, the standard for successful EPMM performance is the reduction of chlorinated VOC concentrations in indoor air to that which constitutes a condition of NSR.

Through June 15, 2024, the results of post-EPMM installation indoor air sampling and monitoring indicate that each of the Option 1 EPMMs installed or activated at residential and commercial properties has achieved the remedial objectives.

6.3.5. System Maintenance and Modifications

On May 7, 2024, GEI replaced the exterior fan at 31-33 Knowlton Street and the battery in the radio node. On April 5, 2024, GEI replaced the exterior fan at 9 Knowlton Street.

GEI has been evaluating the current telemetry system in consideration of the 2024 MCP amendments. The 2024 amendments include continual monitoring of system vacuum. However, GEI understands that properties where telemetry systems are already registered with MassDEP will be grandfathered in (310 CMR 40.1026[3][d][6], effective March 1, 2024), are not required to report system vacuum.

In the event that a property is to be closed with a Partial Permanent Solution with Conditions requiring an AUL, hardware changes at residences will be necessary, including replacing the radio node on the exterior of the house and replacing vacuum pressure switches with vacuum pressure transducers in the basement of each residence. These modifications will require GEI to access the interior of residences. Should this option be selected for closure in the future, GEI will coordinate with property owners at that time to perform the required system modifications.

6.3.6. Management of Waste Materials

No waste materials associated with Option 1 EPMMs were generated during the reporting period.

6.4. Option 2 and 3 EPMMs (Vapor Trench and/or New Slab)

Option 2 and 3 EPMMs consist of passive vapor mitigation and do not require mechanical operation or maintenance. Option 2 or 3 EPMMs have been installed at the following 11 properties:

- 95R Franklin Street (Option 2)
- 12 Morton Street (Option 3)
- 11 Morton Street (Option 2)

- 4 Morton Street (Option 3)
- 10 Morton Street (Option 3, currently undergoing renovation)
- 91-93 Franklin Street (Option 3)
- 17 Knowlton Street (Option 3)
- 32 Knowlton Street (Option 3)
- 34 Knowlton Street (Option 3)
- 19-19A Morton Street (Option 3)
- 166-168 Glen Street (Option 3)

In accordance with the MCP (310 CMR 40.1000) prior to the June 20, 2014 MCP amendments, regulatory closure was achieved with a Class A-3 Response Action Outcome Partial (RAO-P) Statement for several properties with an Option 2 or 3 EPMM. The properties that have achieved a Class A-3 RAO-P are presented in Fig. 6-3. In the amended MCP, the term “Response Action Outcome” has been replaced with “Permanent or Temporary Solution.” Subsequent regulatory closure for individual properties with Option 2 or 3 EPMMs will be achieved with Partial PSSs with Conditions. The condition associated with the PSSs with Conditions will be maintenance of the passive EPMM in accordance with an AUL.

6.4.1. Operation and Monitoring

To confirm the performance of an EPMM, indoor air samples are collected shortly after installation is complete. As identified in the Phase IV FIR/Phase V ROS for Option 2 and 3 EPMMs, following the initial post-installation indoor air sampling, indoor air samples were collected two times per year (including one winter sample) for two consecutive years. In accordance with MassDEP 2016 VI Guidance, GEI modified the post-installation indoor air sampling for newly installed Option 2 and 3 EPMMs to demonstrate effectiveness:

- If groundwater concentrations are less than two times the Method 1 GW-2 standard, and sub-slab soil gas concentrations are less than two times soil gas screening values, and indoor air concentrations are less than two times threshold values (TVs), GEI will perform 2 rounds of indoor air sampling, with one round occurring during the heating season.
- If groundwater concentrations are greater than two times the Method 1 GW-2 standard, and/or sub-slab soil gas concentrations are greater than two times soil gas screening values, and/or indoor air concentrations are greater than two times TVs, GEI will perform quarterly indoor air sampling, with two rounds occurring during the heating season.

Additional indoor air sampling beyond the first year may be performed based on property-specific conditions. Samples will be analyzed for Site-specific chlorinated VOCs. During indoor air sampling, the condition of the EPMM will be inspected and, if needed, repairs or modifications will be scheduled.

Following the completion of post-installation indoor air sampling, annual inspection and monitoring will include inspecting system components. If needed, repairs or modifications will be scheduled.

A summary of OMM activities performed for Option 2 and 3 EPMMs during this reporting period is presented in Table 6-2. GEI performed EPMM inspections at: 12 Morton Street and 19-19A Morton Street. GEI was unable to access: 4 Morton Street and 95R Franklin Street during the reporting period. Because the EPMM has been removed for construction at 10 Morton Street, GEI did not conduct an inspection. GEI will continue its attempts to obtain access for EPMM inspections at these properties during the next reporting period. EPMM Inspection Forms are in Appendix I.

6.4.1.1. 10 Morton Street Renovation

GEI was made aware of a property sale for 10 Morton Street on February 14, 2023, through contact with the new homeowner. The new homeowner indicated that they had plans to renovate the basement of the home. To evaluate the need for the continued presence of the EPMM installed beneath the slab, four soil vapor points were installed and sampled in March and April 2023.

On June 21, 2023, GEI submitted a RAM Plan to address contemplated changes to activities and uses of the Property as they relate to the previously-installed EPMM. Based on historical (2007 and 2008) and recent (2023) sub-slab soil gas sampling, an updated Unit Risk Factor for PCE (2014) and the “WSC No. 16-435: Vapor Intrusion Guidance,” dated October 2016 (2016 VI Guidance), GEI concluded in the RAM Plan that the EPMM was no longer required to maintain a condition of NSR and could be demolished. However, in response to comments subsequently received from MassDEP, a RAM Plan Modification was submitted on November 8, 2023 to provide for a sub-slab venting system and 20 mil vapor barrier to be installed during renovations and for post installation sub-slab soil gas and indoor air testing to be conducted to evaluate whether an EPMM and an AUL are required to maintain a condition of NSR.

GEI submitted RAM Status Report No. 2 in May 2024. In February 2024, GEI observed A-Zoulas Environmental Enterprises (A-Zoulas) of Hudson, New Hampshire install the sub-slab venting system and vapor barrier. A-Zoulas returned the next day to conduct a smoke test of the newly installed vapor barrier. Where smoke penetrated the vapor barrier, A-Zoulas made repairs using double-sided tape and Stegomastic. The EPMM installation will be complete when the riser pipe to the roof is reconnected, which will occur when the siding is installed at the residence. In April 2024, GEI installed four new soil vapor pins through the foundation slab. Following the riser pipe installation GEI will collect confirmatory sub-slab soil vapor samples.

6.4.2. Efficiency and Effectiveness

For residential buildings, the primary goals for EPMM performance are the reduction of chlorinated VOC concentrations in indoor air to below residential TVs to the extent feasible, and if that is not feasible to achieve a condition of NSR. For commercial buildings, the standard for successful EPMM performance is the reduction of chlorinated VOC concentrations in indoor air to that which constitutes a condition of NSR.

Through June 15, 2024, the results of post-EPMM installation indoor air sampling indicate that the Option 2 or 3 EPMMs currently installed at residential properties have achieved the remedial objectives.

6.4.3. *System Maintenance and Modifications*

No modifications were made to systems during the reporting period.

6.4.4. *Management of Waste Materials*

No waste materials associated with Option 2 or 3 EPMMs were generated during the reporting period.

6.5. Option 4 EPMMs (Passive Vapor Mitigation in New Construction)

Option 4 EPMMs consist of passive vapor mitigation installed in new construction and do not require mechanical operation or maintenance. Option 4 EPMMs have been installed at the following 3 properties:

- 34 Knowlton Street
- 31 Tufts Street
- 121 Washington Street (in progress)

Regulatory closure for individual properties with Option 4 EPMMs will be achieved with Partial PSSs with Conditions. The condition associated with the PSSs with Conditions will be maintenance of the passive EPMM in accordance with an AUL.

6.5.1. *Operation and Monitoring*

To confirm the performance of an EPMM, indoor air samples are collected shortly after installation is complete. Option 4 EPMMs have been conducted as RAMs, and post-installation indoor air sampling for newly installed Option 4 EPMMs to demonstrate effectiveness has been conducted in accordance with MassDEP 2016 VI Guidance:

- If groundwater concentrations are less than two times the Method 1 GW-2 standard, and sub-slab soil gas concentrations are less than two times soil gas screening values, and indoor air concentrations are less than two times threshold values (TVs), GEI will perform 2 rounds of indoor air sampling, with one round occurring during the heating season.
- If groundwater concentrations are greater than two times the Method 1 GW-2 standard, and/or sub-slab soil gas concentrations are greater than two times soil gas screening values, and/or indoor air concentrations are greater than two times TVs, GEI will perform quarterly indoor air sampling, with two rounds occurring during the heating season.

Additional indoor air sampling beyond the first year may be performed based on property-specific conditions. Samples will be analyzed for Site-specific chlorinated VOCs. During indoor air sampling, the condition of the EPMM will be inspected and, if needed, repairs or modifications will be scheduled.

Following the completion of post-installation indoor air sampling, annual inspection and monitoring will include inspecting system components. If needed, repairs or modifications will be scheduled.

A summary of OMM activities performed for Option 4 EPMMs during this reporting period is presented in Table 6-2. GEI conducted indoor air testing at 31 Tufts Street in January 2024. GEI did not perform EPMM inspections at any Option 4 properties during this reporting period.

6.5.1.1. 31 Tufts Street

The property at 31 Tufts Street, formerly a paved parking lot, has been redeveloped as multi-family housing. 31 Tufts Street LLC and Tufts Glen Pocket Park LLC currently are joint owners of the property. E3 Development, Inc. is the Manager and designated developer. E3 Development has constructed a three-story residential apartment building and public open space. MassDEP assigned RTN 3-37468 to the 31 Tufts Street property based on concentrations of polycyclic aromatic hydrocarbons (PAHs) and metals exceeding the applicable MassDEP reportable concentrations in soil (RCS 1) standards. These conditions are not attributable to the 50 Tufts Street Site.

On July 25, 2022, GEI submitted a RAM Plan on behalf of the owner for response actions in connection with construction, including soil management and installation of a vapor barrier and a sub-slab ventilation piping network beneath the building. In September 2022, GEI observed the installation of a vapor barrier and a sub-slab ventilation piping network beneath the building. In October 2022, GEI observed a smoke test to confirm barrier integrity. On December 5, 2023, GEI submitted a RAM Completion Report and Permanent Solution Statement for RTN 3-37468.

GEI has conducted two rounds of sub-slab soil vapor and indoor air sampling as discussed in Section 4. The concentration of VOCs in the sub-slab soil gas samples are below the applicable MassDEP residential sub-slab soil vapor screening values. The concentration of PCE detected in one indoor air sample ($0.203 \mu\text{g}/\text{m}^3$) collected on October 17, 2023, is less than the residential TVs.

We will continue coordinating with the owner and developer of the property to perform additional sub-slab soil vapor and indoor air testing, currently planned for August 2024.

6.5.2. *Efficiency and Effectiveness*

For residential buildings, the primary goals for EPMM performance are the reduction of chlorinated VOC concentrations in indoor air to below laboratory reporting limits to the extent feasible, and to achieve a condition of NSR. For commercial buildings, the standard for successful EPMM performance is the reduction of chlorinated VOC concentrations in indoor air to that which constitutes a condition of NSR.

Through June 15, 2024, the results of post-EPMM installation indoor air sampling indicate that the Option 4 EPMMs currently installed at residential properties have achieved the remedial objectives.

6.5.3. *System Maintenance and Modifications*

Construction and installation of the EPMM at 121 Washington Street is ongoing.

6.5.3.1. 121 Washington Street

The property at 121 Washington Street is being redeveloped into residential apartment units. A small commercial building and paved parking formerly occupied property. The building was demolished in

October 2020. As of June 2024, most of the building envelope is complete. GEI submitted a RAM Plan on behalf of the owner (Wooden Teeth, LLC) on March 12, 2024. The RAM consists of the installation of a vapor barrier and a sub-slab ventilation piping network beneath the building.

On February 29, 2024, GEI observed the installation of perforated 4-inch pipe; the pipe was installed instead of the low-profile vent strips which had been specified in the original design. The perforated 4-inch pipe was installed embedded in a layer of crushed stone. GEI returned on March 25, 2024, to observe additional areas where the perforated 4-inch pipe was installed. The vent piping was installed by the developer's plumbing contractor.

A portion of the vapor barrier was installed on April 18, 2024, other areas of the vapor barrier were not placed pending commercial tenancy considerations. The vapor barrier was placed over the crushed stone and sealed double-sided tape and Stegomastic. GEI submitted a RAM Status Report in July 2024.

6.5.4. *Management of Waste Materials*

No waste materials associated with Option 4 EPMMs were generated during the reporting period.

6.6. Activity and Use Limitations

It is anticipated that AULs may be warranted for each property where an EPMM is installed, and it is determined that the EPMM is necessary long-term. No AULs were recorded during this reporting period.

6.7. Permanent Solution Statements

GEI evaluates the groundwater chemical testing results collected during MNA activities to update and supplement the plume stability monitoring and natural attenuation evaluation, as presented in the Phase II CSA / Phase III RAP report. An evaluation of the MNA program indicates that the groundwater plumes are stable, overall groundwater concentrations of chlorinated VOCs are not increasing, and natural attenuation processes are occurring at the Site which will likely reduce contaminant concentrations in groundwater over time. Previous investigations have also demonstrated that soil vapor plumes are stable. Visible NAPL has not been observed at the Site, and any DNAPL that may be present is not migrating and exists in a stable configuration. The Phase III demonstrated that it is not feasible to eliminate DNAPL at the Site. There are no unpermitted releases of OHM at the Site. Accordingly, all sources of OHM at the Site have been eliminated or controlled to the extent feasible.

The Updated 2015 Method 3 Risk Characterization that ARCADIS prepared was presented in Phase V Status Report No. 8 and RMR No. 23. The Updated 2015 Method 3 Risk Characterization incorporated updated soil, groundwater, and indoor air data sets, and also included updated MassDEP toxicity information, particularly for PCE and TCE. GEI also routinely performs Method 3 risk screening for additional indoor air data collected since 2015. Based on these risk evaluations, a condition of NSR exists for current and future building occupants at each property within the Site. Based on the Updated 2015 Method 3 Risk Characterization, a condition of NSR does not exist for future construction workers performing excavations at the Property or within the MBTA ROW. The inhalation of excavation air pathway associated with the MassDEP change in TCE toxicity is the main driver of potential risks for construction workers in both of these exposure areas. However, these construction worker risks can and

should be managed with a Health and Safety Plan (HASP) that is prepared and implemented prior to subsurface work in these exposure areas.

Based on a demonstration of source control at the Site, and a condition of NSR at individual properties, many of the individual properties are eligible for a Partial PSS in accordance with the MCP (310 CMR 40.1000). The filing of a Partial PSS for an individual property documents the achievement of regulatory closure under the MCP for that property. Therefore, the Phase V provisions do not apply to properties for which an RAO-P or Partial PSS has been submitted.

The properties that have achieved a Partial PSS are shown on Fig. 6-3. A summary of the different classes of Partial PSSs to be submitted in the future for properties at the Site, depending on the property-specific conditions and the type of mitigation, if any, are discussed below. No new Partial PSS were prepared during the reporting period.

6.7.1. Permanent Solution without Conditions

GEI will prepare a Partial PSS without Conditions for residences where multiple lines of evidence have demonstrated the absence of a soil vapor migration pathway to indoor air and an EPMM is not required. GEI will also prepare Partial PSSs for residences where a Method 3 Risk Characterization, based on multiple rounds of sampling, indicated that concentrations of chlorinated VOCs in indoor air constitute NSR, and the feasibility evaluation demonstrated that installation of an EPMM was infeasible. In addition, GEI will prepare a Partial PSS without Conditions for the portion of the Site occupied by public rights-of-way. The properties that have achieved a Partial PSS without Conditions are shown in Fig. 6-3.

6.7.2. Permanent Solution with Conditions

Active operation and maintenance is required for Option 1 EPMMs. Based on the MCP amendments effective June 20, 2014, a PSS with Conditions can be achieved for properties with an Option 1 EPMM. The condition associated with the PSSs with Conditions would be maintenance of the EPMM in accordance with an AUL.

GEI will attempt to record an AUL at each property with an Option 1, 2, 3 or 4 EPMM to maintain the integrity of the EPMM. No new AULs were recorded during the reporting period. After an AUL is recorded, GEI will prepare a Partial PSS with Conditions for residential properties with Option 1, 2 or Option 3 EPMMs where 2 years of post-installation indoor air samples have demonstrated that the EPMM is effective. Following the post-installation indoor air sampling, GEI will continue annual inspections of Option 1, 2, 3 and 4 EPMMs as provided for in the Phase IV RIP. The properties that have achieved a Partial PSS with Conditions are shown in Fig. 6-3. If a property owner does not execute an AUL, inspections will continue as Phase V activities.

6.8. Future Phase V Activities

6.8.1. EPMM Operation and Monitoring

The results of post-EPMM installation indoor air sampling indicate that the Option 1, 2, 3 and 4 EPMMs installed at the Site have achieved the remedial objectives.

GEI will continue to conduct annual OMM activities for installed EPMMs where sufficient indoor air sampling has been conducted, but not repeat indoor air testing, to confirm it is achieving the remedial design objectives.

GEI has been communicating with property developers for 31 Tufts Street and 121 Washington Street. An EPMM has been installed at 31 Tufts Street and an EPMM is in the process of being installed at 121 Washington Street. GEI will plan with the property owners to continue the operation and monitoring program outlined in Section 6.5.

6.8.2. EPMM Modifications

As discussed in Section 6.1, the properties at 103 Washington Street and 105 Washington Street are mixed-use redevelopments with commercial space and open-air parking on the first floor and residential units above. The pre-existing buildings at both properties have been demolished and the AEPMM previously at 103 Washington Street was removed.

As discussed in Section 6.3, remote telemetry has been installed at each Option 1 EPMM except for 9 Knowlton Street. The owner of 9 Knowlton Street has been unresponsive to telemetry access request letters, telephone calls, and property visits. Therefore, it is infeasible to install telemetry at the property at this time.

As discussed in Section 6.4, 10 Morton Street is being renovated and a new EPMM is being installed in the modification.

6.8.3. EPMM Closure Sampling

As discussed in Section 6.3.2, GEI collected indoor air samples from 13 Knowlton Street in February 2018, March 2019, November 2019, and January 2023 and from 9 Knowlton Street in June 2022, January 2023, and March 2023 to demonstrate that the Option 1 EPMM is not required to maintain a condition of NSR.

Based on the results of the Option 1 EPMM closure sampling, GEI will continue to evaluate the need for an AEPMM to achieve a condition of NSR at 9 Knowlton and 13 Knowlton Street.

6.8.4. Installation of New EPMMs

During this reporting period, the EPMM at the 121 Washington Street development began installation. As discussed in Section 6.5.3, the remainder of the installation is pending commercial tenancy.

6.8.5. AULs and Permanent Solutions

As discussed in Section 6.7., the source of contamination at the Site has been controlled. If post-installation indoor air sampling at a property demonstrates that an EPMM continues to achieve the remedial objectives, then that property is eligible for a Partial PSS with Conditions.

GEI anticipates recording AULs for each property where an EPMM is installed, and a Partial PSS with Conditions is to be issued.

Once the AULs are recorded, GEI will prepare a Partial PSS with Conditions for the properties with EPMs. As discussed in Section 6.7, GEI will prepare Partial PSSs for those properties that did not require mitigation.

6.8.6. Future Residential Monitoring

As discussed in Section 1.4., GEI continues to attempt to contact new property owners in the Tufts Street neighborhood as property ownership turnover occurs. To that effect, GEI has pursued contact with the new owner of 84 Franklin Street to conduct indoor air and sub-slab soil vapor monitoring at the property during the heating season of winter 2024/2025. As discussed in Sections 4.3 and 4.4, GEI collected indoor air and sub-slab soil vapor sampling at 97 Franklin Street in May 2024; GEI will conduct an additional round of indoor air sampling and install new sub-slab soil vapor monitoring points in the heating season of winter 2024/2025. These efforts are documented in Appendix B.

7. 60 Tufts Street

7.1. Background

60 Tufts Street is a 17-unit condominium building adjacent to the Property. The mitigation system at 60 Tufts Street was designed and constructed as an SSDS. The SSDS includes 12 vertical sub-slab extraction points and 2 horizontal foundation wall extraction points connected to 2 collection headers and a 5-horsepower regenerative blower with pressure gauges, controls, and particulate filter housed in a locked metal enclosure. GEI began operation of the SSDS on April 24, 2009. A discharge pipe extends from the blower through a parking garage deck and discharges above the roofline of the building.

On July 24, 2015, remote telemetry was installed at 60 Tufts Street. The remote telemetry consists of one radio node and one pressure switch connected to the blower to send notification of a system shut down remotely to the wireless remote monitoring hub located at the Property.

The system does not include off-gas treatment. Based upon the measured flow rate and VOC concentrations, the annual discharge rate of VOCs from the system will be significantly less than 100 lbs per year; therefore, no off-gas treatment is required per MassDEP Policy No. WSC-94-150.

7.2. Remedial Objectives

The objectives of the SSDS at 60 Tufts Street are to:

- Eliminate or mitigate, to the extent feasible, the potential soil vapor migration pathway to indoor air.
- Achieve a condition of NSR for occupants of the condominium building.

7.3. Inspection and Monitoring

The system has been monitored in accordance with the requirements and schedule in the Phase IV RIP, and in accordance with the requirements and schedule presented in subsequent Phase IV Status Reports, and the Phase IV FIR/Phase V ROS.

Operational parameters for the system (e.g., flow rate, vacuum) were historically monitored monthly and indoor air quality in Units 1, 4, and 5 and sub-slab conditions were monitored for 2 years following installation of the EPMM. The Phase IV RIP provided for ongoing annual indoor air sampling. However, post-EPMM indoor air sampling and visual inspections confirmed that the EPMM at 60 Tufts Street has been constructed in accordance with the Phase IV RIP and has achieved the remedial design objectives. Accordingly, GEI no longer conducts annual indoor air testing, but has continued to monitor operational parameters of the system.

Once remote telemetry was installed on the system on July 24, 2015, GEI began to perform monitoring of system parameters on a quarterly basis in July 2015. Inspection and monitoring at 60 Tufts Street was performed two times from December 2023 to June 2024. A summary of monitoring activities conducted

during this reporting period is provided in Table 7-1 and the Field Monitoring Forms are provided in Appendix H.

7.4. Performance Efficiency and Effectiveness

As presented in the Phase IV RIP and Phase IV FIR/Phase V ROS reports, the SSDS monitoring data show that the sub-slab vacuum field generated by the SSDS influences nearly the entire floor slab area. Indoor air samples were collected in Units 1, 4, and 5, which are the units closest to the ground floor, for 2 years after EPMM installation. The indoor air testing results indicated that a condition of NSR has been achieved for building occupants at 60 Tufts Street and the soil vapor migration pathway to indoor air has been mitigated to the extent feasible.

7.4.1. AEPMM Closure Testing

On March 20, 2018, a shutdown valve was installed on the SSDS riser pipe at 60 Tufts Street. To simulate conditions without operation of the AEPMM, the SSDS fan was turned off and the shutdown valve was closed for one week beginning on April 17, 2019, prior to collecting soil vapor and indoor air samples. After the indoor air sampling was completed, the shutdown valve was opened, and the blower was reactivated. The results of the indoor air and soil vapor sampling were presented in Phase V Status Report #16.

7.5. Management of Waste Materials

Infrequently, condensate in system piping may accumulate in the cleanout drains for the sub-surface header pipes, or in the moisture separator installed as part of the blower assembly. If observed, the liquid will be drained and dispensed to the bare ground surface at 60 Tufts Street so that it can infiltrate into the subsurface within the Site boundary.

7.6. System Modifications

No system modifications were made during the monitoring period.

7.7. Future Phase V Activities

The system is achieving the remedial design objectives and OMM activities will continue. To confirm system performance, GEI will continue to monitor operational parameters and sub-slab conditions (e.g., flow rate, vacuum) on a quarterly basis. During monitoring events, GEI will also perform maintenance tasks as needed, which may include documenting that the blower is in operation, draining accumulated water from the moisture separator or collection headers, changing the filter element for the blower, changing the batteries in the auto-dialer, and correcting any issues observed during routine inspection of system components. GEI will implement any modifications to the telemetry system that may be required.

7.7.1. EPMM Closure Sampling

Based on pre-EPMM indoor air testing at 60 Tufts Street, and changes to the toxicological characteristics for PCE, the EPMM may not be required to maintain a condition of NSR. GEI has communicated with the owners and occupants of 60 Tufts Street, who are amenable to EPMM closure indoor air testing.

In accordance with MassDEP's 2016 VI Guidance, GEI initiated a closure indoor air testing program at 60 Tufts Street during spring 2018, which is:

- Installing a shutdown valve on March 20, 2018 on the ventilation piping of the EPMM.
- Performing indoor air sampling at 60 Tufts Street in July 2018 and April 2019.
- Shutting down the SSDS fan for 7 days prior to indoor air sampling.
- Keeping the shutdown valve closed for 7 days prior to sampling to effectively prevent venting, and
- Following each sampling event, returning the system to normal operating conditions.

Testing was suspended during the COVID-19 pandemic. The unit that GEI had been testing (Unit #4) was sold, the condominium property management company changed, and GEI has not been able to contact the new owner.

7.7.2. Longest Allowable Duration of AEPMM Shutdown

An operating regime for the 60 Tufts Street AEPMM was included in the Phase IV FIR/Phase V ROS submitted on August 4, 2011, which included an OMM plan for the system. In accordance with the MCP (310 CMR 40.1026[3][e]), and as presented in Status Report No. 7 and RMR No. 22, the longest duration of a shutdown that would be consistent with a level of exposure that does not pose an IH and that poses NSR is 52 years for the 60 Tufts Street property.

7.7.3. Regulatory Closure

As discussed previously in Section 6.7, a Permanent Solution with Conditions can be achieved for properties where an AEPMM has achieved the remedial objectives, an AUL has been recorded for the property, and telemetry is installed. A Partial Permanent Solution Statement with Conditions may be submitted to achieve regulatory closure for 60 Tufts Street if the condominium association for the property executes an AUL. If the last round of shutdown testing demonstrates that an AEPMM no longer is required to maintain a condition of NSR, then a Partial Permanent Solution may be achievable without an AUL.

8. 50 Tufts Street Property

8.1. Background

The remedial system at the Property was originally designed and constructed as an SSDS that includes 22 sub-slab extraction points inside the building, a 15-horsepower regenerative blower with pressure gauges, controls, and particulate filter, and three 2,000-lb activated carbon absorbers operated in series for off-gas treatment. As part of the SSDS installation, the building slab was sealed to minimize vapor transmission through the slab. The cracks and joints in the building slab were filled with flexible sealant and a two-part epoxy coating was applied to the surface of the slab. GEI began operating the SSDS on April 30, 2007.

In July and August 2007, SVE components were added to the system as part of the CRA to address residual VOCs in soil. The SVE system includes seven SVE points installed below the pavement in the north and south parking lots on the Property. The SSDS and the SVE system rely upon shared equipment, including the piping manifold, blower assembly, and off-gas treatment units. GEI began operating the SVE system on August 22, 2007.

In April 2015, a wireless telemetry hub was installed at the Property. The telemetry hub receives telemetry notification from the other AEPMMs at the Site. A radio node was also installed and connected to monitor the 50 Tufts Street system.

8.2. Remedial Objectives

The design objectives of the combined SSDS/SVE system were to:

- Eliminate or mitigate, to the extent feasible, the soil vapor migration pathway to indoor air.
- Achieve a condition of NSR for a commercial full-time worker.
- Reduce the mass of contaminants in the vadose zone.
- Control the potential migration of soil vapor from the Property to the 60 Tufts Street property.

8.3. Inspection and Monitoring

The system has been monitored in accordance with the requirements and schedule in the Phase IV RIP. Monitoring of the system was historically performed monthly; however, once telemetry was installed on the system, GEI began performing quarterly monitoring in July 2015. Operational parameters for the system (e.g., flow rate, vacuum, off-gas treatment efficiency) were monitored five times from December 2023 to June 2024. GEI also measures the vapor pressure of sub-slab extraction points and monitoring points periodically. GEI uses these sub-slab pressure measurements to confirm system effectiveness. The pipe and hose connections on the pressure side of the blower are examined during monitoring visits for potential leaks. Leaks, if encountered, are corrected immediately. Carbon change-outs are scheduled based on carbon tank monitoring data to maximize VOC adsorption while maintaining compliance with regulatory requirements regarding discharge of VOCs to the atmosphere.

Procedures to address potential spills of spent activated carbon during carbon change-outs have been developed and are presented in the system OMM Plan provided in the Phase IV RIP.

GEI performs monitoring for off-gas treatment efficiency monthly. Based on that monitoring, the system off-gas for the combined SSDS/SVE system was within permissible limits during the reporting period. A summary of monitoring activities during this reporting period is provided in Table 8-1, and Field Monitoring Forms are provided in Appendix H.

8.4. Performance Efficiency and Effectiveness

The SSDS monitoring data show that the sub-slab vacuum field generated by the SSDS covers most of the building slab area. In conjunction with the physical sealing of the slab, this indicates the soil vapor migration pathway to indoor air is being mitigated by the system. Based on indoor air testing results collected since the combined system has been in operation, and the Method 3 risk characterizations prepared for the Site, a condition of NSR for full-time commercial workers has been achieved for the building at the Property.

The SVE system monitoring data show that vacuum influence from the SVE points in the south parking lot extends approximately 30 feet south of the building and from the SVE points in the north parking lot extends onto 60 Tufts Street.

Three influent and two effluent samples from the carbon treatment system were collected in May 2007, June 2007, and March 2008. The results of this sampling were compared with PID field measurements to estimate the total mass of VOCs removed from soil vapor between April 2007 and May 2014. However, GEI collected more recent influent and effluent samples in February 2014. The results of the February 2014 influent and effluent sampling are a better indicator of current system conditions and were used to estimate the total mass of VOCs removed from soil vapor based on PID field measurements beginning in June 2014. Monitoring data from both the SSDS and SVE components through June 15, 2024 show that approximately 9,441 lbs (approximately 701 gallons) of VOCs have been removed from the vadose zone at the Property (Fig. 8-1).

8.5. Management of Waste Materials

Infrequently, condensate in system piping may accumulate in the moisture separator installed as part of the blower assembly. If observed, the liquid is drained from the moisture separator and dispensed to the bare ground surface at the Property so that it can infiltrate into the subsurface within the Site boundary.

Based on the previous quantities of spent carbon generated by the system, a 2023 Hazardous Waste Report was submitted to MassDEP on March 7, 2024, identifying the Property as a Large Quantity Generator (LQG) facility. GEI will submit the next biennial Hazardous Waste Report in early 2026.

No remediation waste was generated during this reporting period.

8.6. System Modifications

No system modifications were made during this reporting period.

8.7. Future Phase V Activities

The system is achieving the remedial design objectives. Phase V ROS OMM activities will continue in accordance with the requirements and schedule set forth in the Phase IV RIP.

8.7.1. Longest Duration of AEPMM Shutdown

An operating regime for the 50 Tufts Street AEPMMs was included in the Phase IV FIR/ Phase V ROS submitted on August 4, 2011, which included an OMM plan for the system. Indoor air sampling performed at 50 Tufts Street by GeoInsight in September 2006 identified PCE concentrations ranging from 550 to 800 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), and TCE concentrations ranging from 16 to 150 $\mu\text{g}/\text{m}^3$. In accordance with the MassDEP Fact Sheet “TCE Toxicity Information: Implications for Chronic and Shorter-Term Exposure,” dated March 27, 2014, the pre-EPMM concentrations in the building would pose an IH even over a short time period, such as a matter of days. However, GEI performed indoor air sampling during an unscheduled SSDS/SVE system shutdown in March 2015. The March 2015 indoor air concentrations did not pose an IH, and TCE was not detected during the March 2015 indoor air sampling. Based on system monitoring logs, the system was likely down for slightly less than 1 month during the March 2015 shut down. This information indicates that an IH would not be present during a minor shut down of the 50 Tufts Street system. Because the building is currently occupied, sampling cannot be conducted after the system has been shut down for a full 60 days or longer, so the maximum duration for a system shutdown that might pose an IH is not known now.

GEI will continue to operate the AEPMM at 50 Tufts Street.

9. Monitored Natural Attenuation

9.1. MNA Program Objectives

MNA is part of the remedial strategy to reach a Permanent Solution for the Site. GEI has implemented an MNA program to confirm on-going natural attenuation is occurring at the Site. The MNA program is described in the MNA OMM Plan presented in the Phase IV RIP. The primary elements of the MNA program include:

- **Plume Stability Monitoring:** A groundwater sampling plan to monitor overburden and bedrock groundwater plume concentrations through time to confirm that the groundwater plumes are stable, and that overall groundwater concentrations of chlorinated VOCs are not increasing.
- **Natural Attenuation Evaluation:** An evaluation of overburden and bedrock groundwater plume concentrations through time for indications of the presence and rate of natural attenuation processes.

9.2. MNA Activities

GEI conducted the following MNA activities during the reporting period:

- **Groundwater Level Measurements:** GEI measured groundwater levels at monitoring wells shown in Table 9-1. A groundwater contour plan for wells screened in shallow overburden is shown in Fig. 9-1.
- **Groundwater Sampling:** GEI collected groundwater samples from 31 monitoring wells in April 2024, additional monitoring wells than the historical spring groundwater sampling were included during this year's sampling event. Samples were submitted them for chemical testing for VOCs by EPA Method 8260B. The sampling locations are shown in Fig. 4-1, the chemical testing results are shown in Table 4-2, and the laboratory data reports are in Appendix D.

GEI evaluated the groundwater chemical testing results collected during MNA activities to update and supplement the plume stability monitoring and natural attenuation evaluation, as presented in the Phase II CSA / Phase III RAP report.

Based on an analysis of the Mann-Kendall statistical trend test results, which incorporates the additional groundwater testing data, the PCE, TCE, and TCA groundwater plumes continue to be stable.

GEI has been monitoring concentration fluctuations in groundwater PCE concentrations in monitoring wells MW122 and MW112A, and TCE concentrations in monitoring wells MW118D and MW121D. The concentrations decreased in MW121D and were consistent in MW118D. The concentrations increased slightly in MW112A.

Concentrations of PCE and TCE demonstrate an increasing trend in MW122. These results are generally within a range of fluctuation that is consistent with continuing plume stability, particularly when considered in context with prior groundwater results from all monitoring wells. There has been an

increase in PCE and TCE concentrations in overburden monitoring well MW122 (1,600 µg/L and 200 µg/L, respectively in November 2023) particularly over the past five years. During the April 2024, the concentrations of PCE and TCE were an order of magnitude less than previous rounds of sampling. However, downgradient overburden monitoring wells MW118S and MW121S remain non-detect for PCE and TCE, suggesting that the plume remains stable despite increased concentrations at MW122. GEI will perform additional groundwater sampling of these monitoring wells in fall 2024.

GEI collected a groundwater sample from replacement monitoring well MW104R located on the southern portion of the 50 Tufts Street parcel. Original monitoring well MW104 was destroyed during the GLX construction; the southern portion of the 50 Tufts Street property was heavily re-worked as part of construction. GEI installed replacement well MW104R in May 2022. The location of MW104R was adjusted slightly east and is located adjacent to the MBTA underdrain vault. Concentrations of PCE in MW104R are greater than historical concentrations in destroyed MW104, however, concentrations of TCE are similar. GEI intends to collect another sample from MW104R during the fall groundwater sampling for additional evaluation.

GEI will investigate potential utilities in Franklin Street that may be contributing to a preferential pathway for contaminant migration. MW122 is adjacent to 97 Franklin Street. While historical soil vapor and indoor air monitoring at the property did not warrant the installation of an EPMM, GEI has initiated soil gas and indoor air sampling as discussed in Section 4.3 and 4.4.

10. Tufts Street Reconstruction

In July 2023, the City of Somerville announced the Tufts Street Reconstruction project. GEI attended community meetings and community communication events in August and October 2023. At the time, the scope of the project included the reconstruction/ widening of sidewalks, replacement of select catch basins, realignment of Tufts Street, and repaving the road surface. GEI additionally attended a meeting with the City and their LSP (Atlas Environmental and Infrastructure) to discuss historical contamination at the 50 Tufts Street property. The planned construction schedule was originally during the summer and fall of 2024.

On February 29, 2024, the City of Somerville announced that based on community feedback the scope of the project would expand to include the addition of planting trees and greenery. The City of Somerville stated that this would require deeper excavations and stated that due to the historical contamination originating at 50 Tufts Street additional shallow soil analysis was planned. The City of Somerville announced that the construction schedule has been updated to 2025 and 2026. GEI understands that the project will be conducted under a Utility Release Abatement Measure Plan which will include a Soil and Groundwater Management Plan. The Tufts Street Reconstruction project website with updated communication and concept plans is:

<https://voice.somervillema.gov/tufts-street-reconstruction?preview=true>.

GEI observed eight soil borings marked for DigSafe within the street and on the sidewalk on March 8, 2024. GEI later observed that drilling had occurred in the locations previously marked. GEI understands that soil samples were collected during this drilling investigation, but GEI has not received the results of the soil sampling.

10.1. 50 Tufts Street Soil Borings and Soil Samplings

Based on discussions with UniFirst, on February 12, 2024, GEI observed Northern Drill Service, Inc. of Northborough, Massachusetts (Northern) advance five soil borings (50TUFT-B101 through 50TUFT-B105) on the 50 Tufts Street property adjacent to the property boundary with the City of Somerville sidewalk (Fig 10-1). The purpose of the soil sampling was to evaluate concentrations of chlorinated VOCs on the 50 Tufts Street property near the proposed work area for the Tufts Street Reconstruction project. Borings 50TUFT-B101 and 501TUFT-B102 were advanced in the northern parking lot and borings 50TUFT-B103 through 50TUFT-B105 were advanced in the southern parking lot. Borings were advanced to a depth of five feet and samples collected from 0 to 1 feet, 1 to 3 feet, and 3 to 5 feet, with the exception of 50TUFT-B102 which encountered an obstruction at a depth of 3 feet. Soil samples were submitted to Alpha for analysis of VOCs.

Soil samples collected from the borings were continuously logged (lithology and physical observations) in accordance with the USCS guidelines. Field screening for VOCs in the jar headspace for soil samples was performed with a PID equipped with a 10.6 eV lamp. PID field screening results are summarized on the boring logs in Appendix F. Jar headspace screening results ranged from 0.1 to 21.8 ppm.

Concentrations of cis-1,2-DCE, PCE, toluene, and TCE were detected above the reporting limits in at least one sample. The highest concentrations of PCE (100 milligrams per kilogram (mg/kg)) were detected in 50TUFT-B103 at a depth of 0 to 1 feet, which is immediately adjacent to the warehouse loading bay. Concentrations at 50TUFT-B103 decreased to 2.8 mg/kg in the sample collected from 1 to 3 feet and to 0.00052 mg/kg in the sample collected from 3 to 5 feet. A summary table of the chemical analysis is in Table 10-1. The laboratory data sheets are in Appendix D.

11. Remedial Monitoring Report No. 41

Remedial Monitoring Report No. 41, documenting OMM activities for active remedial systems at the Site, is presented in the BWSC-108A and 108B Transmittal Forms in Appendix A.

12. References

MassDEP (1994). "Off-gas Treatment of Point-Source Remedial Air Emissions," Massachusetts Department of Environmental Protection, Policy #WSC-94-150, dated 1994.

MassDEP (2016). "Vapor Intrusion Guidance: Site Assessment, Mitigation and Closure, Policy # WSC-16-435", dated October 14, 2016.

MassDEP (2024). The Massachusetts Contingency Plan (MCP), 310 CMR 40.0000. March 1, 2024.

GEI (2015). Phase V Status Report No. 28 and Remedial Monitoring Report No. 23, 50 Tufts Street, Somerville, MA, RTN 3-23246, dated August 2, 2015.

GEI (2022). Release Abatement Measure Plan, 31 Tufts Street, a portion of 50 Tufts Street Disposal Site, Somerville, Massachusetts, RTNs 3-23246 and 3-37468, dated July 25, 2022.

GEI (2023). Release Abatement Measure Status Report No. 1, 31 Tufts Street, a portion of 50 Tufts Street Disposal Site, Somerville, Massachusetts, RTNs 3-23246 and 3-37468, dated January 11, 2023.

GEI (2023). Release Abatement Measure Status Report No. 2, 31 Tufts Street, a portion of 50 Tufts Street Disposal Site, Somerville, Massachusetts, RTNs 3-23246 and 3-37468, dated May 22, 2023.

GEI (2023). Release Abatement Measure Plan, 10 Morton Street, a portion of 50 Tufts Street Disposal Site, Somerville, Massachusetts, RTNs 3-23246, dated June 21, 2023.

GEI (2023). Release Abatement Measure Plan Modification and Status Report No. 1, 10 Morton Street, a portion of 50 Tufts Street Disposal Site, Somerville, Massachusetts, RTNs 3-23246, dated November 8, 2023.

GEI (2023). Release Abatement Measure Completion Report and Permanent Solution Statement, 31 Tufts Street, a portion of 50 Tufts Street Disposal Site, Somerville, Massachusetts, RTNs 3-23246 and 3-37468, dated December 4, 2023.

GEI (2024). Release Abatement Measure Plan, 121 Washington Street, a portion of 50 Tufts Street Disposal Site, Somerville, Massachusetts, RTNs 3-23246, dated March 12, 2024.

GEI (2024). Release Abatement Measure Status Report No. 2, 10 Morton Street, a portion of 50 Tufts Street Disposal Site, Somerville, Massachusetts, RTNs 3-23246, dated May 2, 2024.

GEI (2024). Release Abatement Measure Status Report No. 1, 121 Washington Street, a portion of 50 Tufts Street Disposal Site, Somerville, Massachusetts, RTNs 3-23246, dated July 20, 2024.

GEI (2024). Phase V Status Report No. 25 and Remedial Monitoring Report No. 40, 50 Tufts Street, Somerville, MA, RTN 3-23246, dated February 2, 2024.

GEI (2024). Release Abatement Measure Status Report No. 2, 10 Morton Street portion of 50 Tufts Street, Somerville, MA, RTN 3-23246, dated May 2, 2024.

Kennedy/Jenks Consultants (2018). 120-Day Release Notification, 132 Washington Street, Somerville, MA, dated January 23, 2018.

TRC (2019). URAM Plan for Excavation and Dewatering, MBTA Green Line Extension, Somerville, MA, RTN 3-35528, dated April 2019.

TRC (2019). Release Abatement Measure Plan, 132 Washington Street, Somerville, MA, dated July 2019.

TRC (2019). Release Abatement Measure Modification and Status Report #7, MBTA Green Line Extension Project, Somerville Special Project Designation, Somerville, MA, RTN 3-30620, dated July 15, 2019.

TRC (2019). Utility-Related Abatement Measure Completion Report, MBTA Green Line Extension, Somerville, MA, RTN 3-35528, dated August 2019.

TRC (2024). Release Abatement Measure Completion Report, 132 Washington Street, Somerville, MA, dated May 7, 2024.

Weston & Sampson (2019). Downgradient Property Status Submittal, 132 Washington Street, Somerville, MA, RTN 3-34742, dated June 2019.

Tables

Table 2-1. GLX Excavated Material Summary (RTN 3-34742)
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

RAM Status Report	Date	Cubic Yards	Classification	Disposal Location	Comments		
Status Report No. 1	11/15/2019	11,678.22	Hazardous Waste	Heritage Environmental Services, Roachdale, IN	Stored off-site for > 90 days prior to disposal		
Status Report No. 2	5/15/2020	5,124	Hazardous Waste	Heritage Environmental Services, Roachdale, IN			
Status Report No. 3	11/10/2020	1,576	Hazardous Waste	Heritage Environmental Services, Roachdale, IN			
		2,107	Non-Hazardous	Lynn Landfill, Lynn, MA			
		1,740	Non-Hazardous	Allied Niagara Fall Landfill, Niagara Falls, NY			
Status Report No. 4	5/10/2021	960.16	Non-Hazardous	Lynn Landfill, Lynn, MA			
		408.46	Non-Hazardous	Allied Niagara Fall Landfill, Niagara Falls, NY			
Status Report No. 5	10/27/2021	4,387.18	Non-Hazardous	Lynn Landfill, Lynn, MA			
		362.50	Non-Hazardous	Allied Niagara Fall Landfill, Niagara Falls, NY			
Status Report No. 6	5/6/2022	170	Hazardous Waste	Heritage Environmental Services, Roachdale, IN	Disposal documents not in RAM Status Report		
		21.49	Non-Hazardous	Lynn Landfill, Lynn, MA			
		742.24	Non-Hazardous	Allied Niagara Fall Landfill, Niagara Falls, NY			
Status Report No. 7	10/6/2022	145.31	Hazardous Waste	Heritage Environmental Services, Roachdale, IN			
		622.63	Non-Hazardous	Lynn Landfill, Lynn, MA			
		519.77	Non-Hazardous	Allied Niagara Fall Landfill, Niagara Falls, NY			
Status Report No. 8	5/15/2023	84.53	Non-Hazardous	Lynn Landfill, Lynn, MA			
		17.95	Non-Hazardous	Allied Niagara Fall Landfill, Niagara Falls, NY			
		270.97	Non-Hazardous	Winchendon Landfill, in Winchendon, MA			
Status Report No. 9	11/8/2023				No Soil Transported		
RAM Completion Report	5/7/2024				Status Reports Summary Completion Report		
					Tons	CY	CY
			Hazardous Waste	Heritage Environmental Services, Roachdale, IN	18,694	10,996	10,129
			Non-Hazardous	Lynn Landfill, Lynn, MA	8,183	4,814	4,918
			Hazardous Waste	Allied Niagara Fall Landfill, Niagara Falls, NY	3,791	2,230	2,489
			Non-Hazardous	Winchendon Landfill, in Winchendon, MA	271	159	160
Total:					30,938.41	18,199	17,696

General Notes:

1. All volumes are in tons.
2. CID: Contained In Determination
3. 1.7 tons per cubic yard
4. Weight in tons reported according to RTN 3-34742 RAM Status Reports

Table 2-2. GLX Contained-In Determinations (RTN 3-34742)
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Contained-In Determination Number	Date	Cubic Yards	Description
CID #1	1/6/2020	up to 1,500	Characterize Phase 2 excavations on the west side of ROW
CID #1, Amend #1	3/18/2020	approx. 2,500	Planned Washington Street excavations
CID #1, Amend #2	4/20/2020	approx. 265	Test pits with ROW for drainage structures and stockpiled soil from deep drilled shafts
CID #2	9/11/2020	up to 800	Stockpiled soil generated during deep drainage structures excavation
CID #3	5/26/2021	up to 360	Washington Stret pump station utility trench and stockpiled soil generated during pump station utility installations
	7/22/2021		Revision CID #3, noted soil was not "co-mingled".
CID #4	7/23/2021	approx. 340	Stockpiled soil generated during Washington Street pump station utility manhole excavations
CID #5	11/15/2021	approx. 500	Stockpiled soil (~500 cubic yards) generated during the excavation and removal of an Underground Storage Tank (UST) at the Washington Street Pump Station
CID #6	11/15/2021	approx. 20	Stockpiled soil generated from the cleanup of runoff sediment at the Washington Street Pump Station.
CID #7	12/17/2021	approx. 40	Stockpiled soil generated from the clean out of the Washington Street Pump Station House
CID #8	1/20/2022	approx. 400	Stockpiled soil generated during site grading at the Washington Street Pump Station
CID #9	3/3/2022	approx. 120	Stockpiled soil generated during site grading at the Washington Street Pump Station
CID #10	4/21/2022	approx. 60	Stockpiled soil generated during site grading at the Washington Street Pump Station
CID #11	9/8/2022	approx. 80	Stockpiled soil generated during site grading at the Washington Street Pump Station
CID #12	11/17/2022	approx. 260	Stockpiled soil generated from site landscaping at the Washington Street Pump Station
CID #13	10/13/2023	up to 20	Stockpile soil generated during manhole drainage clean outs under the Washington Street Bridge.
CID #14	12/20/2023	up to 20	Stockpile soil generated during manhole drainage clean outs under the Washington Street Bridge.
Total:		7,285.00	

General Notes:

1. CID: Contained In Determination

Table 2-3. Right of Way Soil Characterization
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Date	Appendix	Collected by	Documentation
May 2010-April 2014	C-1	Kleinfelder	MBTA
May 2019; October-November 2019	C-2	Unknown	BSC Group, letter of 12/23/2019 to MassDEP
October 2019-April 2020	C-3	TRC	RAM Status Report No. 2, May 15, 2020
April 2020 -August 2020	C-4	TRC	RAM Status Report No. 3, May 15, 2020
November 2020 -February 2021	C-5	TRC	RAM Status Report No. 4, May 10, 2021
April 2021 and June 2021	C-6	TRC	RAM Status Report No. 5, October 27, 2021
October 2021 -January 2022	C-7	TRC	RAM Status Report No. 6, May 6, 2022
March 2022	C-8	TRC	RAM Status Report No. 7, October 6, 2022
July 2022 and November 2022	C-9	TRC	RAM Status Report No. 8, May 15, 2023
September 2023	C-10	TRC	RAM Status Report No. 9, November 8, 2023

General Notes:

1. ROW: Right of Way

Table 4-1. Summary of Groundwater Sampling Activities
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sampling Event and Date	Sampled Locations	QA/QC Samples
Quarterly Groundwater Sampling 5/23/2006 5/24/2006 5/25/2006	SH-MW1, SH-MW2, SH-MW3, GEO-1, GEO-2, MW-1, MW-GEO-3, GEO-4, GEO-5, GEO-6, MW101, MW102 MW103, SH-4	NA Field Duplicate of GEO-3 NA
Groundwater Sampling 8/7/2006	MW103	NA
Quarterly Groundwater Sampling 10/4/2006 10/5/2006	SH-MW1, SH-MW2, SH-MW3, GEO-3 GEO-4, GEO-5 and GEO-1, GEO-2, MW101, MW102, MW103, MW104 and	Field Duplicate MW900 (GEO-3) NA
Quarterly Groundwater Sampling 1/16/2007 1/17/2007 1/18/2007	SH-MW1, SH-MW2, GEO-3, GEO-4, GEO-5, GEO-6, SH-MW3, MW-1, MW-3, GEO-1 and GEO-2 MW103, MW106, MW107, MW108, MW109, MW110 and	Field Duplicate MW900 (GEO-6) Field Duplicate MW800 (GEO-1) NA
Groundwater Sampling 2/20/2007 3/23/2007	MW113 and MW114 MW112A, MW115R AND MW116	NA NA
Quarterly Groundwater Sampling 4/12/07 4/13/07 4/16/07 5/23/07	SHMW1, SHMW3, GEO1, GEO2 and MW113 GEO3, MW101, MW102, MW103, MW104, MW106, SHMW2, GEO4, GEO5, GEO6, MW105, MW108, MW109, MWCS1	NA Field Duplicate MW900 (MW101) Field Duplicate MW901 (GEO6) NA
Quarterly Groundwater Sampling 7/18/2007 7/19/2007 7/20/2007	MW102, MW107, MW108, MW11, MW112A, MW113, MW114, MW115R, M2116 and MW117S SHMW2, MW104, MW105, MW106, MW117T, MW117D, MW118S, MW118T and MW118D	Sample from MW102 was used for MS/MSD Field Duplicate MW900 (MW113) Field Duplicate MW901 (MW116) NA NA
Groundwater Sampling 8/22/07 8/30/07	MW119S, MW119T, MW120S and MW120D MW118S, MW118T and MW118D	NA NA
Quarterly Groundwater Sampling 10/10/2007 10/11/2007 10/12/2007 10/15/2007 10/22/2007	MW102, MW105, MW106, MW107, MW108, MW111, MW112A, MW113, MW114, MW115 MW117T, MW117D, MW118S, MW118T, MW118D MW116, MW119S, MW119T, MW120S, MW120D, MW201, MW104, MW117S MW121S, MW121D	Sample from MW102 was used for MS/MSD Field Duplicate MW900 (MW113) NA Field Duplicate MW901 (MW116) NA NA
Quarterly Groundwater Sampling 1/9/2008 1/10/2008 1/11/2008 1/15/2008 1/16/2008 1/17/2008	MW105, MW115 MW102, MW106, MW107, MW108, MW111, MW112A MW104, MW113, MW114, MW116, MW117S, MW118S, MW201, MW202 MW117T, MW117D, MW118T, MW119S, MW120S, MW118D, MW119T MW120D	NA Sample from MW102 was used for MS/MSD Field Duplicate MW900 (MW113) Field Duplicate MW901 (MW116) NA NA NA
Groundwater Sampling 1/30/2008	MW122	NA
Quarterly Groundwater Sampling 4/15/2008 4/16/2008 4/17/2008 4/18/2008	GEO-1, SH-MW3, MW3, MW104, MW113, MW116, MW201, MW202, MW203 MW117S, MW117T, MW117D, MW118T, MW118D, MW102, MW106, MW107, MW108, MW109, MW111, MW112A, MW114, MW115R, MW120D, MW121S, MW105	Field duplicate MW113 (MW900) Field duplicate MW116 (MW901) NA Sample from MW102 was used for MS/MSD NA

Table 4-1. Summary of Groundwater Sampling Activities
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sampling Event and Date	Sampled Locations	QA/QC Samples
Quarterly Groundwater Sampling 7/14/2008	MW105, MW112A, MW121S, MW121D, MW122	Field duplicate MW112A (MW900) Field duplicate MW121D (MW901) Sample from MW104 was used for MS/MSD
7/15/2008	GEO-1, GEO-2, MW-3, MW104, MW118S, MW118T, MW118D, MW119S, MW119T, MW120S, MW120D, MW116, MW117S, MW117T, MW117D, MW118D	NA
7/16/2008		
Quarterly Groundwater Sampling 10/21/2008	MW104, GEO-1, GEO-2 MW116, MW117S, MW117T, MW117D, MW118S, MW118T, MW118D, MW202, MW-3	Sample from MW104 was used for MS/MSD
10/22/2008	MW105, MW112A, MW119S, MW119T, MW120S, MW120D, MW121S, MW121D, MW122	Field duplicate MW112A (MW901) Field duplicate MW121D (MW900)
Quarterly Groundwater Sampling 4/15/2008	GEO-1, SH-MW3, MW3, MW104, MW113, MW116, MW201, MW202, MW203	Field duplicate MW113 (MW900) Field duplicate MW116 (MW901) NA
4/16/2008	MW117S, MW117T, MW117D, MW118T, MW118D, MW102, MW106, MW107, MW108, MW109, MW111, MW112A, MW114, MW115R, MW120D, MW121S, MW105	Sample from MW102 was used for MS/MSD
4/17/2008		NA
4/18/2008		
Quarterly Groundwater Sampling 7/14/2008	MW105, MW112A, MW121S, MW121D, MW122	Field duplicate MW112A (MW900) Field duplicate MW121D (MW901) Sample from MW104 was used for MS/MSD
7/15/2008	GEO-1, GEO-2, MW-3, MW104, MW118S, MW118T, MW118D, MW119S, MW119T, MW120S, MW120D, MW116, MW117S, MW117T, MW117D, MW118D	NA
7/16/2008		
Quarterly Groundwater Sampling 10/21/2008	MW104, GEO-1, GEO-2 MW116, MW117S, MW117T, MW117D, MW118S, MW118T, MW118D, MW202, MW-3	Sample from MW104 was used for MS/MSD
10/22/2008	MW105, MW112A, MW119S, MW119T, MW120S, MW120D, MW121S, MW121D, MW122	Field duplicate MW112A (MW901) Field duplicate MW121D (MW900)
Quarterly Groundwater Sampling 1/12/2009	MW105, MW112A, MW121S, MW121D, MW122	Field duplicate MW112A (MW900) Field duplicate MW121D (MW901) NA
1/13/2009	GEO-1, GEO-2, MW117S, MW117T, MW117D, MW119S, MW104, MW-3, MW116, MW118S, MW118T, MW118D	Sample from MW104 was used for MS/MSD
1/14/2009		
Quarterly Groundwater Sampling 4/13/2009	GEO-1, GEO-2, MW105, MW112A, MW119S, MW119T, MW121S, MW121D, MW122	Field duplicate MW121D (MW900) Field duplicate MW112A (MW901) NA
4/14/2009	MW-3, MW104, MW117S, MW117T, MW117D, MW118T, MW102, MW116, MW118S	NA
4/15/2009		
Quarterly Groundwater Sampling 7/14/2009	MW105, MW112A, MW116, MW118T, MW121S, MW121D, MW202	Field duplicate MW121D (MW900) Field duplicate MW112A (MW901) Sample from MW104 was used for MS/MSD
7/15/2009	GEO-1, GEO-2, MW-3, MW104, MW117S, MW117T, MS117D, MW118S, MW118D, MW119S, MW119T,	
Quarterly Groundwater Sampling 10/14/2009	GEO-1, GEO-2, MW104, MW105, MW112A, MW116, MW117S, MW117D, MW118S, MW118D, MW121S, MW119T, MW119S, MW120S, MW120D, MW118T	Field duplicate MW112A (MW900) Field duplicate MW118D (MW901) Sample from MW104 was used for MS/MSD
10/15/2009	MW117T, MW3	
10/16/2009		
Annual Groundwater Sampling 4/12/2010	MW104, MW105, MW112A, MW118S, MW118T, MW118D, MW121S, MW121D, MW122, MW202	Field duplicate MW112A (MW900) Sample from MW104 was used for MS/MSD
4/13/2010	GEO-1, GEO-2, SH-MW3, MW116, MW117S, MW117T, MW117D, MW119S, MW119T, MW120S, MW120D	Field duplicate MW116 (MW901)
Semi-Annual Groundwater Sampling 10/27/2010	MW112A, MW122	NA

Table 4-1. Summary of Groundwater Sampling Activities
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sampling Event and Date	Sampled Locations	QA/QC Samples
Annual Groundwater Sampling 4/20/2011 4/21/2011 4/22/2011	MW105, MW112A, MW117D, MW118S, MW118T, GEO-2, SH-MW3, MW104, MW116, MW117S, MW117T GEO-1, MW119S, MW119D, MW120S, MW120D, MW202	Field duplicate MW112A (MW900) Field duplicate MW116 (MW901) Sample from MW104 was used for MS/MSD
Semi-Annual Groundwater Sampling 11/16/2011	MW112A, MW122	NA
Annual Groundwater Sampling 4/16/2012 4/17/2012	SH-MW-3, MW112A, MW117S, MW117T, MW117D, MW118D, MW119S, MW119T, MW120S, MW120D, MW121S, MW121D GEO-1, MW104, MW105, MW116, MW118T, MW122, MW202	Field duplicate MW112A (MW900) Field duplicate MW116 (MW901) Sample from MW104 was used for MS/MSD
Semi-Annual Groundwater Sampling 11/12/2012	MW112A, MW118D, MW121D, MW122	NA
Annual Groundwater Sampling 4/23/2013 4/24/2013 5/1/2013	SH-MW-3, MW105, MW117T, MW119S, MW119T, MW120S, MW120D, MW121S, MW121D, MW122, MW202 GEO-1, MW104, MW112A, MW116, MW117S, MW117D, MW118S, MW118T, MW118D GEO-2	NA Field duplicate MW116 (MW900) Field duplicate MW112A (MW901) Sample from MW104 was used for MS/MSD
Semi-Annual Groundwater Sampling 11/18/2013	MW112A, MW118D, MW121D, MW122	NA
Kleinfelder Groundwater Sampling 2/6/2014 4/8/2014 4/9/2014 4/14/2014 4/15/2014	KE-114-140206, KE-115-140206, KE-116-140206, KE-117-140206, MW-SR-140206, WashSW-140206 KE-202D, KE-202S KE-117 KE-204, KE-206, KE-208 KE-205, KE-207, KE-209, KE-210	Sample from WashSW-140206 was a grab sample from the base of an open excavation. NA NA NA NA
Annual Groundwater Sampling 4/30/2014 5/1/2014 6/11/2014	MW104, MW121S, MW121D, MW122, SH-MW-3, GEO-1, GEO-2 MW117S, MW117T, MW117D, MW118S, MW118D, MW118T, MW119S, MW119T, MW120S, MW120D, MW116 MW112A	Sample from MW104 was used for MS/MSD Field duplicate MW116 (MW900) NA
Semi-Annual Groundwater Sampling 11/18/2014	MW112A, MW118D, MW121D, MW122	NA
Annual Groundwater Sampling 4/2/2015 4/3/2015 4/17/2015	MW104, MW116, MW117S, MW117T, MW117D, MW118S, MW118D, MW119S, MW119T, MW121S, MW121D, MW122, SH-MW-3, GEO-1, GEO-2 MW118T, MW120S, MW120D MW112A	Sample from MW104 was used for MS/MSD Field duplicate MW116 (MW901) Field duplicate MW112A (MW900)
Semi-Annual Groundwater Sampling 11/19/2015	MW118D, MW121D, MW122	NA
Annual Groundwater Sampling 4/28/2016 4/29/2016	MW112A, MW117S, MW117T, MW117D, MW118S, MW118T, MW118D, MW119S, MW119T, MW120S, MW120D, MW121S, MW121D, MW122, GEO-1 MW104, MW116, MW202, GEO-2	Field duplicate MW116 (MW900) Field duplicate GEO-2 (MW901) Sample from MW104 was used for MS/MSD

Table 4-1. Summary of Groundwater Sampling Activities
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sampling Event and Date	Sampled Locations	QA/QC Samples
Semi-Annual Groundwater Sampling 11/21/2016	MW112A, MW118D, MW121D, MW122	NA
Annual Groundwater Sampling 4/17/2017	MW104, MW116, MW117S, MW117T, MW117D, MW118S, MW118T, MW118D, MW121S, MW121D, MW122, MW202, GEO-1	Field duplicate MW116 (MW900) Field duplicate MW112A (MW901) Sample from MW104 was used for MS/MSD
4/18/2017	MW112A, MW119S, MW119T, MW120S, MW120D, GEO-2	
4/28/2017	SH-MW-2, MW104	
Semi-Annual Groundwater Sampling 11/8/2017 11/10/2017	MW118D, MW121D, MW122 MW112A	NA
Annual Groundwater Sampling 4/3/2018	MW117S, MW117T, MW117D, MW118S, MW118T, MW118D, MW119S, MW119T, MW121S, MW121D, MW122	Field duplicate MW116 (MW900) Field duplicate GEO-2 (MW901) Sample from MW104 was used for MS/MSD
4/4/2018	GEO-1, GEO-2, MW104, MW112A, MW116, MW120S, MW120D, MW202, SH-MW-2	
Semi-Annual Groundwater Sampling 11/15/2018	MW 112A MW118D, MW121D, MW122	NA
Annual Groundwater Sampling 4/15/2019	MW112A, MW117S, MW117T, MW117D, MW118S, MW118D, MW121S, MW121D, MW122	Field duplicate MW116 (MW900) Field duplicate GEO-2 (MW901) Sample from SHMW2 was used for MS/MSD
4/16/2019	MW116, MW118T, MW119S, MW119T, MW120S, MW120D, MW202, SHMW2, GEO-1, GEO-2	
Semi-Annual Groundwater Sampling 11/23/2019	MW 112A, MW118D, MW121D, MW122	NA
Annual Groundwater Sampling 4/16/2020	MW112A, MW117S, MW117T, MW117D, MW118S, MW118D, MW121S, MW121D, MW122	Field duplicate MW116 (MW900) Field duplicate GEO-2 (MW901) Sample from MW202 was used for MS/MSD
4/17/2020	MW116, MW118T, MW119S, MW119T, MW120S, MW120D, MW202, GEO-1, GEO-2	
Semi-Annual Groundwater Sampling 11/18/2020	MW 112A, MW118D, MW121D, MW122	NA
Annual Groundwater Sampling 4/13/2021	MW112A, MW117S, MW117T, MW117D, MW118S, MW118T, MW118D, MW121S, MW121D, MW122	Field duplicate MW116 (MW900) Field duplicate GEO-2 (MW901) Sample from GEO-1 was used for MS/MSD
4/14/2021	MW116, MW119S, MW119T, MW120S, MW120D, MW202, GEO-1, GEO-2	
Semi-Annual Groundwater Sampling 11/30/2021	MW 112A, MW118D, MW121D, MW122	NA
Annual Groundwater Sampling 4/12/2022	MW118S, MW118T, MW118D, MW117T, MW117S, MW117D	Field duplicate MW116 (MW900) Field duplicate GEO-2 (MW901) Sample from GEO-1 was used for MS/MSD
4/13/2022	MW120S, MW120D, MW119S, MW119T, MW121S, MW121D, GEO-1, MW122, MW202, MW116	
4/14/2022	GEO-2 and MW112A	
Semi-Annual Groundwater Sampling 11/29/2022	MW 112A, MW118D, MW121D, MW122	NA

Table 4-1. Summary of Groundwater Sampling Activities
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sampling Event and Date	Sampled Locations	QA/QC Samples
Annual Groundwater Sampling 4/17/2023	MW118S, MW118T, MW118D, MW117T, MW117S, MW117D, MW122, MW119S, MW119T	Field duplicate MW116 (MW900) Field duplicate GEO-2 (MW901) Sample from GEO-1 was used for MS/MSD
4/18/2023	MW120S, MW120D, MW121S, MW121D GEO-1, GEO-2, MW202, MW116	
5/11/2023	MW112A	
Additional Sampling for PSS 9/15/2023	MW108	NA
Semi-Annual Groundwater Sampling 11/7/2023	MW 112A, MW118D, MW121D, MW122	NA
Annual Groundwater Sampling 4/2/2024	MW107, MW112A, MW118D, MW118S, MW118T, MW117D, MW117S, MW117T, MW119S, MW119T, GEO- 1, MW108, MW120S	Field duplicate MW116 (MW900) Field duplicate GEO-2 (MW901) Sample from GEO-1 was used for MS/MSD
4/3/2024	MW102, MW103, MW106, MW116, MW120D, MW121S, MW121D, MW201, MW202, GEO-5, GEO-6, SH-MW2R	
4/4/2024	MW104R, MW109, MW122, GEO-2, GEO-4,	

General Notes:

1. NA = not applicable.
2. QA/QC = quality assurance/quality check.
3. MS/MSD = matrix spike/matrix spike duplicate.
4. VOC = volatile organic compound.
5. All groundwater samples submitted for VOC testing. Selected samples collected in January 2007, April 2010, April 2011, April 2012, April 2013, April 2014, May 2014, June 2014, April 2015, April 2016, April 2017, April 2018, April 2019, April 2020, April 2021, April 2022, April and May 2023, and April 2024 were also submitted for natural attenuation parameter testing.

Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location:					GEO-1	GEO-1	GEO-1	GEO-1	GEO1	GEO1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1
Sample Name:					GEO-1	GEO-1	GEO-1	GEO-1	MW800 (FD)	GEO1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1	GEO-1
Well Screen Interval (ft bgs):					5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20
Sample Date:					8/16/04	5/23/06	10/5/06	1/17/07	1/17/07	4/12/07	4/15/08	7/15/08	10/21/08	1/13/09	4/13/09	7/15/09	10/14/09	4/13/10	4/22/11	4/17/12	4/24/13	4/30/14	4/2/15	4/28/16	4/17/17	4/4/18	4/16/19	4/17/20	4/14/21	4/13/22	4/18/23	4/2/24	GEO-1
Collected By:					Geolnsight	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEO-1
Analyte	Method	Units	Method 1 GW-2 Standard	Method 3 GW-3 Standard																													
Volatile Organic Compounds (VOCs)					8260	µg/l																											
Acetone			50000	50000	< 400	< 5.0	< 5.0	< 5.0	< 5.0	9.7	< 5.0	< 5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 10	< 10	< 10	< 50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
Benzene			1000	10000	< 20	< 0.50	< 0.50	< 0.50	< 0.50	0.27 J	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Bromodichloromethane			6	50000	< 20	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
2-Butanone (MEK)			50000	50000	< 200	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 10	< 10	< 10	< 10	< 10	< 10	< 5.0	
Carbon disulfide			NS	NS	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	
Carbon tetrachloride			2	5000	< 20	3.6	1.4	2.3	2.3	5.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chlorobenzene			200	1000	< 20	0.76 J	0.86 J	0.76 J	0.84 J	0.77 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloroethane			NS	NS	< 40	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 1.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	
Chloroform			50	20000	< 20	< 1.0	< 1.0	0.60 J	0.61 J	1.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloromethane			NS	NS	< 40	< 2.0	3.7	< 2.0	1.8 J	6.2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 1.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	
1,4-Dichlorobenzene			60	8000	< 20	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1-Dichloroethane			2000	20000	< 20	4.3	2.9	5.4	5.6	10.6	< 1.0	0.38 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloroethane			5	20000	< 20	< 1.0	< 1.0	< 1.0	< 1.0	1.3	< 1.0	13.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1-Dichloroethylene			80	30000	39.8	989	1330 E	247	241	8980	3.0	26.2	1.4	1.3	1.7	< 1.0	2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	
cis-1,2-Dichloroethylene			20	50000	< 20	4.3	2.3	3.3	< 1.0	8.7	< 1.0	1.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	
trans-1,2-Dichloroethylene			90	50000	< 20	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloropropane			3	50000	< 20	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,4-Dioxane			5000	50000	NT	< 25	< 25 R	< 25	< 25	< 25	< 25	< 25	< 25	< 25 J+	< 25	< 25	< 25	< 25	367	< 25	< 50	< 25 K-	< 25	< 100	< 630	< 130	< 130	< 500	< 250	< 250	< 250	< 250	
Ethylbenzene			20000	5000	< 20	< 1.0	< 1.0	< 1.0	< 1.0	0.41 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	
2-Hexanone			NS	NS	< 200	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	
4-Isopropyltoluene			NS	NS	< 20	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	
Methyl tert-butyl ether			50000	50000	< 20	64.2	5.3 J+	2.5	2.7	6.9 J+	7.9	< 1.0	< 1.0	0.26 J	1.1	< 1.0	4.8	< 1.0	< 1.0	< 1.0	< 1.0 K-	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 4.0	&				

Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Well Screen Interval (ft bgs): Sample Date: Collected By:					GEO-2	GEO-2	GEO-2	GEO-2	GEO2	GEO-2	GEO-2	GEO-2	GEO-2	GEO-2	GEO-2	GEO-2	GEO-2	GEO-2	GEO-2	GEO-2	GEO-2	GEO-2	GEO-2	GEO-2	GEO-2	GEO-2	GEO-2	GEO-2	GEO-2	GEO-2
Geolnsight					GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI
Analyte	Method	Units	Method 1 GW-2 Standard	Method 1 GW-3 Standard																										
Volatile Organic Compounds (VOCs)					8260	µg/l																								
Acetone		50000	50000	487	< 5.0	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 5.0	
Benzene		10000	10000	< 5.0	< 0.50	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Bromodichloromethane		6	50000	< 5.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
2-Butanone (MEK)		50000	50000	< 5.0	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 10	< 10	< 10	< 10	< 5.0	< 5.0	
Carbon disulfide		NS	NS	< 25	< 5.0	< 5.0	4.5 J	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Carbon tetrachloride		2	5000	< 5.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chlorobenzene		200	1000	< 5.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloroethane		NS	NS	< 10	< 2.0	< 2.0	< 10	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	
Chloroform		50	20000	< 5.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	0.62 J	< 1.0	0.60 J	0.84 J	< 1.0	< 1.0	< 1.0	< 1.0	0.56 J	0.76 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloromethane		NS	NS	< 10	< 2.0	< 2.0	< 10	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	
1,4-Dichlorobenzene		60	8000	< 5.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1-Dichloroethane		2000	20000	< 5.0	2.2	2.0	< 5.0	2.5	1.1	< 1.0	< 1.0	0.29 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloroethane		5	20000	< 5.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1-Dichloroethylene		80	30000	23.2	14.2	26.3	25.2	11.5	13.4	8.4	7.0	17.0	6.5	10.8	13.8	3.7	7.8	3.8	3.1	4.3	4.9	1.5	1.1	1.1	< 1.0	< 1.0	< 1.0	2.3	2.6	1.7
cis-1,2-Dichloroethylene		20	50000	< 5.0	< 1.0	1.6	9.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.8	< 1.0	< 1.0	3.1	2.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
trans-1,2-Dichloroethylene		90	50000	< 5.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloropropane		3	50000	< 5.0	< 2.0	< 2.0	< 10	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,4-Dioxane		5000	50000	NT	< 25	< 25 R	< 130	< 25	< 25	< 25	< 25	< 25 J+	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 130	< 130	< 130	< 130	< 130	< 250	< 250	
Ethylbenzene		20000	5000	< 5.0	< 1.0	< 1.0	3.1 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
2-Hexanone		NS	NS	< 5.0	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
4-Isopropyltoluene		NS	NS	< 5.0	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Methyl tert-butyl ether		50000	50000	37.6	79.9	12.8 J+	9.8	16.5	< 1.0	5.9	0.45 J	< 1.0	0.29 J	0.56 J	< 1.0	< 1.0	4.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Methylene chloride		2000	50000	< 5.0	< 2.0	< 2.0	< 10	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Naphthalene		700	20000	< 5.0	< 5.0	< 5.0	8.3 J	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Tert-amyl methyl ether		NS	NS	NT	< 2.0	< 2.0	< 10	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
1,1,1,2-Tetrachloroethane		10	50000	< 5.0	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Tetrachloroethylene (PCE)		20	30000	285	131	693	1420	120	115	140	110	263 G	202	167	480	66.4	140	119	76.3	147	145	50.7	48.5	45.4						

Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location:					GEO-2	GEO-2	GEO-2	GEO-2	GEO-2	GEO-2	GEO-2	GEO-3	GEO-3	GEO-3	GEO-3	GEO-3	GEO-3	GEO-3	GEO-3	GEO-4	GEO-4	GEO-4	GEO-4	GEO4	GEO4	GEO-5	GEO-5	GEO-5	GEO-5	GEO5	GEO5	GEO-6	GEO-6
Sample Name:					GEO-2	MW901	GEO-2	MW901	GEO-2	MW901	GEO-2	MW901	GEO-3	GEO-3	MW900 (FD)	GEO-3	MW900 (FD)	GEO-3	GEO3	GEO-4	GEO-4	GEO-4	GEO-4	GEO4	GEO4	GEO-5	GEO-5	GEO-5	GEO-5	GEO5	GEO5	GEO-6	GEO-6
Well Screen Interval (ft bgs):					5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20
Sample Date:					4/14/2022	4/14/2022	4/18/2023	4/18/2023	4/4/2024	4/4/2024	8/16/04	5/24/06	5/24/06	10/4/06	10/4/06	1/16/07	4/13/07	8/16/04	5/24/06	10/4/06	1/16/07	4/16/07	4/4/24	8/16/04	5/24/06	10/4/06	1/16/07	4/16/07	4/3/24	8/16/04	5/24/06	5/24/06	
Collected By:					GEI	GEI	GEI	GEI	GEI	GEI	Geolnsight	GEI	GEI	GEI	GEI	GEI	GEI	Geolnsight	GEI	GEI	GEI	GEI	GEI	Geolnsight	GEI	GEI	GEI	GEI	GEI	Geolnsight	GEI	Geolnsight	GEI
Analyte	Method	Units	Method 1 GW-2 Standard	Method 1 GW-3 Standard																													
Volatile Organic Compounds (VOCs)					8260	µg/l																											
Acetone			50000	50000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	< 1000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 2000	< 5.0	< 5.0	< 100	< 50	<120	< 2000	< 5.0	< 5.0	< 250	< 5.0	<5.0	< 200	< 5.0	
Benzene			1000	10000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 5.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 100	< 0.50	< 0.50	< 10	< 5.0	<12	< 100	< 0.50	< 0.50	< 25	< 0.50	<0.5	< 10	< 0.50	
Bromodichloromethane			6	50000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	< 10	<25	< 100	< 1.0	< 1.0	< 50	< 1.0	<1.0	< 10	< 1.0	
2-Butanone (MEK)			50000	50000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1000	< 5.0	< 5.0	< 100	< 50	<120	< 1000	< 5.0	< 5.0	< 250	< 5.0	<5.0	< 100	< 5.0	
Carbon disulfide			NS	NS	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 250	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 100	< 50	<50	< 5.0	< 5.0	< 5.0	< 250	< 5.0	<2.0	< 5.0	< 5.0	
Carbon tetrachloride			2	5000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	< 10	<25	< 100	< 1.0	< 1.0	< 50	< 1.0	<1.0	< 10	< 1.0	
Chlorobenzene			200	1000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	< 10	<25	< 100	< 1.0	< 1.0	< 50	< 1.0	<1.0	< 10	< 1.0	
Chloroethane			NS	NS	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 100	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 200	< 2.0	< 2.0	< 40	< 20	<50	< 200	< 2.0	< 100	< 2.0	< 100	< 2.0	<2.0	< 20	< 2.0
Chloroform			50	20000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	2.5	< 20	< 10	<25	< 100	< 1.0	0.62 J	< 50	< 1.0	<1.0	< 10	< 1.0	
Chloromethane			NS	NS	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 100	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 200	< 2.0	< 2.0	< 40	< 20	<50	< 200	< 2.0	< 100	< 2.0	< 100	< 2.0	<2.0	< 20	< 2.0
1,4-Dichlorobenzene			60	8000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	< 10	<25	< 100	< 1.0	< 1.0	< 50	< 1.0	<1.0	< 10	< 1.0	
1,1-Dichloroethane			2000	20000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 5.0	< 1.0	< 1.0	11.6	11.6	2.6	< 1.0	< 1.0	< 100	2.7	7.1	< 20	< 10	<25	< 100	3.0	9.7	< 50	< 1.0	<1.0	< 10	2.0	
1,2-Dichloroethane			5	20000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	< 10	<25	< 100	< 1.0	< 1.0	< 50	< 1.0	<1.0	< 10	< 1.0	
1,1-Dichloroethylene			80	30000	2.6	2.3	3.3	2.7	1.2	1.1	108	< 1.0	< 1.0	59.3	59.1	11.5	1.4	< 100	6.1	17.8	< 20	< 10	<25	< 100	8.9	32.7	< 50	< 1.0	<1.0	< 10	4.6		
cis-1,2-Dichloroethylene			20	50000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 5.0	< 1.0	< 1.0	2.8	2.6	1.2	< 1.0	< 100	6.3	16.7	< 20	5.5 J	<25	< 100	12.5	35.2	< 50	< 1.0	<1.0	14.8	9.1		
trans-1,2-Dichloroethylene			90	50000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	< 10	<25	< 100	< 1.0	< 1.0	< 50	< 1.0	<1.0	< 10	< 1.0	
1,2-Dichloropropane			3	50000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 100	< 2.0	< 2.0	< 40	< 20	<25	< 100	< 2.0	< 2.0	< 100	< 2.0	<1.0	< 10	< 2.0	
1,4-Dioxane			5000	50000	<250	<250	<250	<250	<250	<250	NT	< 25	< 25	< 25 R	< 25 R	< 25	< 25	NT	< 25	< 25 R	< 5.0	< 250	<6200	NT	< 25	< 25 R	< 1300	< 25	<250	NT	< 25		
Ethylbenzene			20000	5000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	< 1.0	< 1.0	< 20	< 10	<25	< 100	< 1.0	< 1.0	< 50	< 1.0	<1.0	< 10	< 1.0	
2-Hexanone			NS	NS	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1000	< 5.0	< 5.0	< 100	< 50	<120	< 1000	< 5.0	< 5.0	< 250	< 5.0	<5.0	< 100	< 5.0	
4-Isopropyltoluene			NS	NS	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 100	< 5.0	< 5.0	< 100	< 50	<50	< 100	< 5.0	< 5.0	< 250	< 5.0	<2.0	< 10	< 5.0	
Methyl tert-butyl ether			50000	50000	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 5.0	< 1.0	< 1.0	1.2 J+	1.1 J+	< 1.0	< 1.0	< 100	< 1.0	1.5 J+	< 20	< 10	<50	< 100	1.3	3.3 J+	< 50	< 1.0	<2.0	< 10	1.3		
Methylene chloride			2000	50000	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 5.0	< 2.0	< 2.0	< 5.0	< 2.0	< 5.0	< 2.0</																

**Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts**

Sample Location:					GEO-6	GEO-6	GEO-6	GEO6	GEO-6	GEO6	MW-1	MW-1	MW-1	MW-1	MW1	MW-101	MW101	MW101	MW101	MW101	MW-102	MW102	MW102	MW102	MW102	MW102	MW102	MW102	MW103	MW103	MW103	MW-103		
Sample Name:					GEO-6	GEO-6	MW900 (FD	GEO6	MW901 (FD	GEO6	MW-1	MW-1	MW-1	MW-1	MW1	MW-101	MW101	MW101	MW101	MW101	MW900	MW-102	MW102	MW-102	MW102	MW102	MW102	MW102	MW103	MW103	MW103	MW-103		
Well Screen Interval (ft bgs):					5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	Unknown	Unknown	Unknown	Unknown	Unknown	9 to 19	9 to 19	9 to 19	9 to 19	9 to 19	6 to 16	6 to 16	6 to 16	6 to 16	6 to 16	6 to 16	6 to 16	6 to 16	5/24/06	6 to 16	6 to 16	MW-103		
Sample Date:					10/4/06	1/16/07	1/16/07	4/16/07	4/16/07	4/16/07	7/1/02	8/9/04	5/23/06	1/17/07	4/17/07	5/24/06	10/5/06	1/17/07	4/13/07	4/13/07	4/13/07	5/24/06	10/5/06	1/16/07	4/13/07	7/18/07	10/10/07	1/10/08	4/17/08	4/3/24	5/24/06	8/7/06	10/5/06	1/16/07
Collected By:					GEI	GEI	GEI	GEI	GEI	GEI	SHA	Geolnsight	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	
Analyte	Method	Units	Method 1 GW-2 Standard	Method 1 GW-3 Standard																														
Volatile Organic Compounds (VOCs)					8260	µg/l																												
Acetone			50000	50000	< 5.0	< 5.0	< 5.0	< 10	< 5.0	<50	< 5.000	< 40000	40.0	36.1	< 2500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0			
Benzene			1000	10000	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	<5	< 5.00	< 2000	2.0	< 0.50	< 250	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT	< 1.0	< 0.50	< 0.50	< 0.5	< 5.0	< 0.50	< 0.50		
Bromodichloromethane			6	50000	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	<10	< 5.00	< 2000	< 1.0	< 1.0	< 500	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
2-Butanone (MEK)			50000	50000	< 5.0	< 5.0	< 5.0	< 10	< 5.0	<50	< 5.000	< 4000	< 5.0	< 5.0	< 2500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	< 5	< 5.0	< 5.0	< 5.0		
Carbon disulfide			NS	NS	< 5.0	0.81 J	< 5.0	< 10	< 5.0	<20	< 5.000	< 10000	< 5.0	< 5.0	< 2500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0		
Carbon tetrachloride			2	5000	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	<10	< 5.00	< 2000	19.0	22.4	< 500	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
Chlorobenzene			200	1000	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	<10	< 5.00	< 2000	1.1	1.2	< 500	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
Chloroethane			NS	NS	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	<20	< 10000	< 4000	< 2.0	< 2.0	< 1000	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		
Chloroform			50	20000	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	<10	< 7500	< 2000	3.7	1.6	< 500	1.8	< 1.0	< 1.0	< 1.0	< 1.0	1.8	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.65 J		
Chloromethane			NS	NS	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	<20	< 25000	< 4000	< 2.0	14.6	< 1000	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		
1,4-Dichlorobenzene			60	8000	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	<10	< 25000	< 2000	< 1.0	< 1.0	< 500	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
1,1-Dichloroethane			2000	20000	4.4	1.7	1.6	0.92 J	1.1	<10	< 7500	< 2000	59.8	59.9	< 500	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.6	< 1.0	0.88 J	< 1.0	< 1.0	0.42 J	2.1	4.1	0.51 J	<10	27.2	3.7	13.0	
1,2-Dichloroethane			5	20000	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	<10	< 5.00	< 2000	4.0	< 1.0	< 500	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
1,1-Dichloroethylene			80	30000	11.0	4.4	3.2	2.8	3.8	<10	< 5.00	< 2000	11500	1260	2290	8.7	21.1	14.1	< 1.0	4.6 G	6.3	50.2	30	< 1.0	23.6	39.7	51.8	22.2 C+	<10	13.4	2.0	6.5	4.3	
cis-1,2-Dichloroethylene			20	50000	15.4	7.7	6.9	5.3	6.3	<10	< 5.00	< 2000	24.3	7.7	< 500	< 1.0	< 1.0	1.3	< 1.0	2.1 G	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	3.0	2.5	< 1.0	
trans-1,2-Dichloroethylene			90	50000	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	<10	< 7500	< 2000	< 1.0	< 1.0	< 500	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
1,2-Dichloropropane			3	50000	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	<10	< 18000	< 2000	4.5	< 2.0	< 1000	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 4.0	< 2.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.0		
1,4-Dioxane			5000	50000	< 25 R	< 25	< 25	< 5.0	< 25	<2500	NT	NT	< 25 R	< 25	< 13000	< 25	< 25 R	< 25	< 25	< 25	< 25	< 25 R	< 25	< 25	NT	< 50	< 25	< 25	< 250	< 25	< 25	< 25 R		
Ethylbenzene			20000	5000	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	<10	< 5.00	< 2000	2.8	4.4	< 500	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
2-Hexanone			NS	NS	< 5.0	< 5.0	< 5.0	< 10	< 5.0	<50	< 5.000	< 20000	< 5.0	< 5.0	< 2500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0		
4-Isopropyltoluene			NS	NS	< 5.0	< 5.0	< 5.0	< 10	< 5.0	<20	< 5.00	< 2000	< 5.0	< 5.0	< 2500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0		
Methyl tert-butyl ether			50000	50000	1.9 J+	1.2	1.2	0																										

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
2. ft bgs = feet below ground surface.
3. µg/l = micrograms per liter.
4. " $<$ " = The analyte was not detected at a concentration above the specified reporting.
5. SHA = Sanborn Head & Associates.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.
8. * = micrograms CaCO₃ per liter

Qualifying Notes:

- B The analyte found in associated method blank.
- C+ The result has a high bias due to surrogate recovery above upper control limits.
- E The value exceeds the calibration range.
- F+ The result has a high bias due to matrix spike recovery above upper control limits.
- F- The result has a low bias due to matrix spike recovery below lower control limits.
- G The result is estimated due to duplicate precision outside control limits.
- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- K- The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits.
- K+ The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits.
- R The result is rejected due to gross exceedence of minimum response factor criteria.

**Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts**

[illegible]

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
2. ft bgs = feet below ground surface.
3. µg/l = micrograms per liter.
4. "n" = The analyte was not detected at a concentration above the specified reporting.
5. SHA = Sanborn Head & Associates.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.
8. * = micrograms CaCO3 per liter

Qualifying Notes:

- B The analyte found in associated method blank.
- C+ The result has a high bias due to surrogate recovery above upper control limits.
- E The value exceeds the calibration range.
- F+ The result has a high bias due to matrix spike recovery above upper control limits.
- F- The result has a low bias due to matrix spike recovery below lower control limits.
- G The result is estimated due to duplicate precision outside control limits.
- J The reported result is below the laboratory reporting limit and is estimated.
- K- The reported result is estimated.
- K+ The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits.
- K+ The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits.
- R The result is rejected due to gross exceedence of minimum response factor criteria.

**Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts**

Sample Location: Sample Name: Well Screen Interval (ft bgs): Sample Date: Collected By:					MW105	MW105	MW105	MW105	MW105	MW105	MW105	MW105	MW105	MW105	MW105	MW105	MW105	MW105	MW105	MW105	MW105	MW106	MW106	MW106	MW106	MW106	MW106	MW106	MW107	MW107	MW107	MW107	MW107
Analyte	Method	Units	Method 1 GW-2 Standard	Method 1 GW-3 Standard	MW105	MW105	MW105	MW105	MW105	MW105	MW105	MW105	MW105	MW105	MW105	MW105	MW105	MW105	MW105	MW													

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
2. ft bgs = feet below ground surface.
3. µg/l = micrograms per liter.
4. " $<$ " = The analyte was not detected at a concentration above the specified reporting.
5. SHA = Sanborn Head & Associates.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.
8. * = micrograms CaCO₃ per liter

Qualifying Notes:

- B The analyte found in associated method blank.
- C+ The result has a high bias due to surrogate recovery above upper control limits.
- E The value exceeds the calibration range.
- F+ The result has a high bias due to matrix spike recovery above upper control limits.
- F- The result has a low bias due to matrix spike recovery below lower control limits.
- G The result is estimated due to duplicate precision outside control limits.
- J The reported result is below the laboratory reporting limit and is estimated.
- K- The reported result is estimated.
- K+ The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits.
- K+ The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits.
- R The result is rejected due to gross exceedence of minimum response factor criteria.

**Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts**

Sample Location: Sample Name: Well Screen Interval (ft bgs): Sample Date: Collected By:					MW107 GEI	MW107 2 to 12 4/2/24 GEI	MW108 2 to 12 1/18/07 GEI	MW108 2 to 12 4/16/07 GEI	MW108 2 to 12 7/18/07 GEI	MW108 2 to 12 10/10/07 GEI	MW108 2 to 12 1/10/08 GEI	MW108 2 to 12 4/17/08 GEI	MW108 2 to 12 9/15/23 GEI	MW108 2 to 12 4/2/24 GEI	MW109 3 to 13 1/18/07 GEI	MW109 3 to 13 4/16/07 GEI	MW109 3 to 13 4/17/08 GEI	MW109 3 to 13 4/2/24 GEI	MW110 3 to 13 1/18/07 GEI	MW110 3 to 13 4/17/07 GEI	MW110 3 to 13 5/23/07 GEI	MW111 4 to 14 1/18/07 GEI	MW111 4 to 14 4/16/07 GEI	MW111 4 to 14 7/18/07 GEI	MW111 4 to 14 10/10/07 GEI	MW111 4 to 14 1/10/08 GEI	MW111 4 to 14 4/17/08 GEI	MW112A 4 to 19 3/23/07 GEI	MW112A 4 to 19 4/16/07 GEI	MW112A 4 to 19 7/18/07 GEI	MW112A 4 to 19 10/10/07 GEI	MW112A 4 to 19 1/10/08 GEI	MW112A 4 to 19 4/17/08 GEI		
Analyte	Method	Units	Method 1 GW-2 Standard	Method 1 GW-3 Standard																															
Volatile Organic Compounds (VOCs)					8260	µg/l																													
Acetone			50000	50000	9.2	<5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	<5.0	< 5.0	< 5.0	< 5.0	<5.0	< 5.0	< 5.0	NT	< 50	< 130	NT	< 250	< 5.0	< 10	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	
Benzene			1000	10000	<0.50	<0.5	< 0.50	< 0.50	NT	< 0.50	< 0.50	< 0.50	< 0.50	<0.5	< 0.50	< 0.50	< 0.50	<0.5	< 0.50	< 0.50	NT	< 5.0	< 13	NT	< 25	< 0.50	< 1.0	< 0.50	< 0.50	NT	< 0.50	0.34 J	< 0.50		
Bromodichloromethane			6	50000	< 1.0	<1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	NT	< 10	< 25	NT	< 50	< 1.0	< 2.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0		
2-Butanone (MEK)			50000	50000	1.1 J	<5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	<5.0	< 5.0	< 5.0	< 5.0	<5.0	< 5.0	< 5.0	NT	< 50	< 130	NT	< 250	< 5.0	< 10	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0		
Carbon disulfide			NS	NS	< 5.0	<2.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 2.0	<5.0	< 5.0	< 5.0	< 2.0	<5.0	< 5.0	< 2.0	NT	< 50	< 130	NT	< 250	< 5.0	< 10	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0		
Carbon tetrachloride			2	5000	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	NT	< 10	< 25	< 1.0	< 50	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
Chlorobenzene			200	1000	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	0.28 J	<1.0	< 1.0	< 1.0	NT	< 10	< 25	NT	< 50	< 1.0	< 2.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0		
Chloroethane			NS	NS	< 2.0	<2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	<2.0	< 2.0	< 2.0	< 2.0	<2.0	< 2.0	< 2.0	NT	< 20	< 50	< 2.0	< 100	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		
Chloroform			50	20000	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 10	< 25	NT	< 50	1.2	< 2.0	0.35 J	< 1.0	NT	< 1.0	0.32 J	< 1.0		
Chloromethane			NS	NS	< 2.0	<2.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 2.0	< 2.0	<2.0	< 2.0	< 2.0	< 2.0	<2.0	< 2.0	< 2.0	NT	< 20	< 50	NT	< 100	< 2.0	< 4.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 2.0		
1,4-Dichlorobenzene			60	8000	< 1.0	<1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 10	< 25	NT	< 50	< 1.0	< 2.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0		
1,1-Dichloroethane			2000	20000	3.4	1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	1.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	30.9	15.7 J	16.8	19.1 J	5.6	4.3 C+	27.6	6.4	35.6	114	40.9 C+			
1,2-Dichloroethane			5	20000	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 10	< 25	0.43 J	< 50	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0			
1,1-Dichloroethylene			80	30000	2.3	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	17.6	< 25	10.5	< 50	4.1	3.7 C+	19.7	10.8	6.7	19.7	82.4	36.6 C+		
cis-1,2-Dichloroethylene			20	50000	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	22.6	17.2 J	56.3	63.9	10.6	4.4 C+	< 1.0	0.54 J	0.98 J	4.2	18.7	55.3 C+		
trans-1,2-Dichloroethylene			90	50000	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 10	< 25	1.5	< 50	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
1,2-Dichloropropane			3	50000	< 2.0	<1.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 2.0	< 1.0	<1.0	< 2.0	< 2.0	< 1.0	< 2.0	< 2.0	< 2.0	NT	< 20	< 50	NT	< 100	< 2.0	< 4.0	< 2.0	< 2.0	NT	< 2.0	< 2.0	< 2.0		
1,4-Dioxane			5000	50000	< 25	<250	< 25	< 25	NT	< 25	< 25	< 25	< 250	<250	< 25	< 25	< 25	<250	< 25	< 25	NT	< 250	< 630	NT	< 1300	< 25	< 50	< 25	< 25	NT	< 25	< 25	< 25		
Ethylbenzene			20000	5000	< 1.0	<1.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 10	< 25	NT	< 50	< 1.0	< 2.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0		
2-Hexanone			NS	NS	< 5.0	<5.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	<5.0	< 5.0	< 5.0	< 5.0	<5.0	< 5.0	< 5.0	NT	< 50	< 130	NT	< 250	< 5.0	< 10	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0		
4-Isopropyltoluene			NS	NS	< 5.0	<2.0	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0	< 2.0	<5.0	< 5.0	< 5.0	< 2.0	<5.0	< 5.0	< 5.0	NT	< 50	< 130	NT	< 250	< 5.0	< 10	< 5.0	< 5.0	NT	< 5.0	< 5.0	< 5.0		
Methyl tert-butyl ether			50000	50000	< 1.0	<2.0	< 1.0	< 1.0	NT	< 1.0	< 1.0	< 1.0	< 2.0	<2.0	3.5	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	NT	< 10	< 25	NT	< 50	0.45 J	< 2.0	10.8	13.8	NT	20.3	87.0	20.5 C+		
Methylene chloride			2000	50000	< 2.0	<2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	<2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 20	31.4 J	NT	< 100	< 2.0	&								

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
2. ft bgs = feet below ground surface.
3. µg/l = micrograms per liter.
4. " $<$ " = The analyte was not detected at a concentration above the specified reporting.
5. SHA = Sanborn Head & Associates.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.
8. * = micrograms CaCO₃ per liter

Qualifying Notes:

- B The analyte found in associated method blank.
- C+ The result has a high bias due to surrogate recovery above upper control limits.
- E The value exceeds the calibration range.
- F+ The result has a high bias due to matrix spike recovery above upper control limits.
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- K- The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits.
- K+ The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits.
- R The result is rejected due to gross exceedence of minimum response factor criteria.

Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location:					MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	
Sample Name:					MW112A	MW900 (FD)	MW112A	MW901 (FD)	MW112A	MW900 (FD)	MW112A	MW901 (FD)	MW112A	MW901 (FD)	MW112A	MW900 (FD)	MW112A	MW900 (FD)	MW112A	MW900 (FD)	MW112A	MW900 (FD)	MW112A	MW900 (FD)	MW112A	MW900 (FD)	MW112A	MW900 (FD)	MW112A	MW900 (FD)	MW112A	MW900 (FD)
Well Screen Interval (ft bgs):					4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19	4 to 19
Sample Date:					7/14/08	7/14/08	10/22/08	10/22/08	1/12/09	1/12/09	4/13/09	4/13/09	7/14/09	7/14/09	10/14/09	10/14/09	4/12/10	4/12/10	10/27/10	4/20/11	4/20/11	11/16/11	4/16/12	4/16/12	11/12/12	4/24/13	4/24/13	11/18/13	6/11/14	11/18/14	4/17/15	4/17/15
Collected By:					GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI
Analyte	Method	Units	Method 1 GW-2 Standard	Method 3 GW-3 Standard																												
Volatile Organic Compounds (VOCs)			8260	µg/l																												
Acetone			50000	50000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 F+	< 5.0 F+	< 5.0	< 5.0	< 5.0 J+	< 5.0 J+	< 5.0	< 10	< 10	< 5.0	< 5.0 K-	< 5.0 K-	< 10 K-	< 20	< 20	< 10 K-	< 10 K-	< 10	< 10	
Benzene			1000	10000	< 0.50	< 0.50	< 0.50	< 0.50	0.26 J	0.27 J	0.36 J	0.28 J	< 0.50 F-	< 0.50 F-	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	< 0.50	< 0.50	< 1.0	< 1.0	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	
Bromodichloromethane			6	50000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	
2-Butanone (MEK)			50000	50000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 10	< 5.0	< 5.0	< 5.0	< 10 K-	< 10	< 10	< 5.0	< 5.0	< 5.0	< 5.0	
Carbon disulfide			NS	NS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 10	< 5.0	< 5.0	< 5.0	< 10	< 10	< 10	< 5.0	< 5.0	< 5.0	< 5.0	
Carbon tetrachloride			2	5000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chlorobenzene			200	1000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloroethane			NS	NS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0 G	< 2.0
Chloroform			50	20000	< 1.0	< 1.0	< 1.0	< 1.0	0.23 J	0.24 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloromethane			NS	NS	< 2.0	< 2.0	< 2.0 J+	< 2.0 J+	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0 G	< 2.0
1,4-Dichlorobenzene			60	8000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J+	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1-Dichloroethane			2000	20000	31.5	31.2	43.7	44.6	70.9	70.7	109	89.6	99.3	107	137	142	83.8	88.3	85.5	38.1	38.8	39.5	71.5	69.0	48.1	24.2	37.0	73.5	18.3	64.1 G K-	23.2	
1,2-Dichloroethane			5	20000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1-Dichloroethylene			80	30000	24.5	24.5	39.1	39.3	61.7	61.7	89.2	73.0	91.4	97.7	123	130	74.9	78.6	89.1	57.9	53.0	47.6	86.4	76.2	57.3	30.2	30.0	86.5	38.5	109 K+	39	
cis-1,2-Dichloroethylene			20	50000	81.5	80.9	214	212	225	224	296	247	311	380	390	373	165	196	214	143	140	169	178	185	150	145	112	209	150	321	71.1	
trans-1,2-Dichloroethylene			90	50000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	7.9 G	2.5 G	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5.9	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0 K+	< 1.0	
1,2-Dichloropropane			3	50000	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0
1,4-Dioxane			5000	50000	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	< 50	< 25	< 25	< 25	< 50	< 50	< 50	< 25	< 25	< 25	< 25	
Ethylbenzene			20000	5000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	
2-Hexanone			NS	NS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 10	< 5.0	< 5.0	< 5.0	< 10	< 10	< 10	< 5.0 K-	< 5.0	< 5.0	< 5.0	
4-Isopropyltoluene			NS	NS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 10	< 5.0	< 5.0	< 5.0	< 10	< 10	< 10	< 5.0	< 5.0	< 5.0	< 5.0	
Methyl tert-butyl ether			50000	50000	14.9	13.5	32.4	32.2	33.3	32.9	29.9	23.3	41.4	46.0	77.5	81.4	15.9	20.3	50.3	9.2	9.1	22.3	27.1	26.2	28.8	19.0	14.1	64.6	4.6	47.3 K+	11.9	
Methylene chloride			2000	50000	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	<													

Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location:					MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A	MW112A</
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**Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts**

Sample Location: Sample Name: Well Screen Interval (ft bgs): Sample Date: Collected By:					MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW116	MW11
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General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
2. ft bgs = feet below ground surface.
3. µg/l = micrograms per liter.
4. * = The analyte was not detected at a concentration above the specified reporting.
5. SHA = Sanborn Head & Associates.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.
8. * = micrograms CaCO3 per liter

Qualifying Notes:

- B The analyte found in associated method blank.
- C+ The result has a high bias due to surrogate recovery above upper control limits.
- E The value exceeds the calibration range.
- F+ The result has a high bias due to matrix spike recovery above upper control limits.
- F- The result has a low bias due to matrix spike recovery below lower control limits.
- G The result is estimated due to duplicate precision outside control limits.
- J The reported result is below the laboratory reporting limit and is estimated.
- K- The reported result is estimated.
- K- The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits.
- K+ The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits.
- R The result is rejected due to gross exceedence of minimum response factor criteria.

**Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts**

[illegible]

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
2. ft bgs = feet below ground surface.
3. µg/l = micrograms per liter.
4. "n" = The analyte was not detected at a concentration above the specified reporting.
5. SHA = Sanborn Head & Associates.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.
8. * = micrograms CaCO₃ per liter

Qualifying Notes:

- B The analyte found in associated method blank.
- C+ The result has a high bias due to surrogate recovery above upper control limits.
- E The value exceeds the calibration range.
- F+ The result has a high bias due to matrix spike recovery above upper control limits.
- F- The result has a low bias due to matrix spike recovery below lower control limits.
- G The result is estimated due to duplicate precision outside control limits.
- J The reported result is below the laboratory reporting limit and is estimated.
- K- The reported result is estimated.
- K+ The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits.
- K+ The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits.
- R The result is rejected due to gross exceedence of minimum response factor criteria.

**Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts**

[illegible]

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
2. ft bgs = feet below ground surface.
3. µg/l = micrograms per liter.
4. "n" = The analyte was not detected at a concentration above the specified reporting.
5. SHA = Sanborn Head & Associates.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.
8. * = micrograms CaCO3 per liter

Qualifying Notes:

- B The analyte found in associated method blank.
- C+ The result has a high bias due to surrogate recovery above upper control limits.
- E The value exceeds the calibration range.
- F+ The result has a high bias due to matrix spike recovery above upper control limits.
- F- The result has a low bias due to matrix spike recovery below lower control limits.
- G The result is estimated due to duplicate precision outside control limits.
- J The reported result is below the laboratory reporting limit and is estimated.
- K- The reported result is estimated.
- K- The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits.
- K+ The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits.
- R The result is rejected due to gross exceedence of minimum response factor criteria.

Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location:					MW117S	MW117S	MW117S	MW117S	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T	MW117T
Sample Name:					5 to 20	5 to 20	5 to 20	5 to 20	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45	35 to 45
Well Screen Interval (ft bgs):					4/13/21	4/12/22	4/17/23	4/2/24	7/19/07	10/11/07	1/15/08	4/16/08	7/16/08	10/21/08	1/13/09	4/14/09	7/15/09	10/16/09	4/13/10	4/21/11	4/16/12	4/23/13	5/1/14	4/2/15	4/27/16	4/17/17	4/3/18	4/15/19	4/16/20	4/13/21	4/12/22	4/17/23	4/2/24	4/2/24	
Sample Date:					GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI
Collected By:					GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI
Analyte	Method	Units	Method 1 GW-2 Standard	Method 1 GW-3 Standard																															
Volatile Organic Compounds (VOCs)					8260	µg/l																													
Acetone			50000	50000	<5.0	<5.0	<5.0	<5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 K-	< 10	< 10	< 10	< 10	<10	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0		
Benzene			1000	10000	<0.5	<0.5	<0.5	<0.5	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<0.50	<0.50	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
Bromodichloromethane			6	50000	<1.0	<1.0	<1.0	<1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
2-Butanone (MEK)			50000	50000	<5.0	<5.0	<5.0	<5.0	NT	< 5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	<10	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0			
Carbon disulfide			NS	NS	<2.0	<2.0	<2.0	<2.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0		
Carbon tetrachloride			2	5000	<1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
Chlorobenzene			200	1000	<1.0	<1.0	<1.0	<1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
Chloroethane			NS	NS	<2.0	<2.0	<2.0	<2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0			
Chloroform			50	20000	<1.0	<1.0	<1.0	<1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
Chloromethane			NS	NS	<2.0	<2.0	<2.0	<2.0	NT	< 2.0	< 2.0	< 2.0 J+	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0		
1,4-Dichlorobenzene			60	8000	<1.0	<1.0	<1.0	<1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
1,1-Dichloroethane			2000	20000	<1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
1,2-Dichloroethane			5	20000	<1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
1,1-Dichloroethylene			80	30000	<1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
cis-1,2-Dichloroethylene			20	50000	<1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
trans-1,2-Dichloroethylene			90	50000	<1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
1,2-Dichloropropane			3	50000	<1.0	<1.0	<1.0	<1.0	NT	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
1,4-Dioxane			5000	50000	<250	<250	<250	<250	NT	< 25	< 25	< 25	< 25	< 25	< 25 J+	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	<130	<130	<130	<250	<250	<250	<250	<250	<250		
Ethylbenzene			20000	5000	<1.0	<1.0	<1.0	<1.0	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
2-Hexanone			NS	NS	<5.0	<5.0	<5.0	<5.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0		
4-Isopropyltoluene			NS	NS	<2.0	<2.0	<2.0	<2.0	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0		
Methyl tert-butyl ether			50000	50000	<2.0	<2.0	<2.0	<2.0	NT	3.4	9.8	4.8	1.7	2.8	1.9	4.1	1.5	7.0																	

**Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts**

[illegible]

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
2. ft bgs = feet below ground surface.
3. µg/l = micrograms per liter.
4. "n" = The analyte was not detected at a concentration above the specified reporting.
5. SHA = Sanborn Head & Associates.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.
8. * = micrograms CaCO3 per liter

Qualifying Notes:

- B The analyte found in associated method blank.
- C+ The result has a high bias due to surrogate recovery above upper control limits.
- E The value exceeds the calibration range.
- F+ The result has a high bias due to matrix spike recovery above upper control limits.
- F- The result has a low bias due to matrix spike recovery below lower control limits.
- G The result is estimated due to duplicate precision outside control limits.
- J The reported result is below the laboratory reporting limit and is estimated.
- K- The reported result is estimated.
- K- The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits.
- K+ The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits.
- R The result is rejected due to gross exceedence of minimum response factor criteria.

Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location:					MW118D	MW118D	MW118D	MW118D	MW118D	MW118D	MW118D	MW118D	MW118D	MW118D	MW118D	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S
Sample Name:					MW118D	MW118D	MW118D	MW118D	MW118D	MW118D	MW118D	MW118D	MW118D	MW118D	MW118D	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S
Well Screen Interval (ft bgs):					70 to 80	70 to 80	70 to 80	70 to 80	70 to 80	70 to 80	70 to 80	70 to 80	70 to 80	70 to 80	70 to 80	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14
Sample Date:					11/22/2019	4/16/2020	11/18/2020	4/13/2021	11/30/2021	4/12/2022	11/29/2022	4/17/2023	11/7/2023	4/2/2024	7/20/07	8/30/07	10/11/07	1/11/08	4/16/08	7/15/08	10/21/08	1/14/09	4/15/09	7/15/09	10/14/09	4/12/10	4/20/11	4/24/13	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14
Collected By:					GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI
Analyte	Method	Units	Method 1 GW-2 Standard	Method 1 GW-3 Standard																													
Volatile Organic Compounds (VOCs)					8260	µg/l																											
Acetone			50000	50000	< 10	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	<5	<5.0	NT	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Benzene			1000	10000	< 0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.5	<0.5	<0.5	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 J+	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Bromodichloromethane			6	50000	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	NT	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J+	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
2-Butanone (MEK)			50000	50000	< 10	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	<5	<5.0	NT	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Carbon disulfide			NS	NS	< 2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2.0	NT	NT	< 5.0	< 5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Carbon tetrachloride			2	5000	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J+	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chlorobenzene			200	1000	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	NT	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloroethane			NS	NS	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0 J+	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Chloroform			50	20000	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	NT	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J+	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloromethane			NS	NS	< 1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2.0	NT	NT	< 2.0	< 2.0	< 2.0 J+	< 2.0	< 2.0	< 2.0	< 2.0 J+	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
1,4-Dichlorobenzene			60	8000	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	NT	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J+	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1-Dichloroethane			2000	20000	33.9	44	27	25	22	30	29	28	26	22	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J+	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloroethane			5	20000	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J+	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1-Dichloroethylene			80	30000	2.6	2.4	1.3	< 1.0	< 1.0	< 1.0	<1	<1	<1	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J+	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
cis-1,2-Dichloroethylene			20	50000	57.3	53	10	5.8	4.7	4.1	3.9	3.4	3.1	2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J+	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
trans-1,2-Dichloroethylene			90	50000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J+	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloropropane			3	50000	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	NT	NT	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0 J+	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
1,4-Dioxane			5000	50000	< 130	<250	<250	<250	<250	<250	<250	<250	<250	<250	NT	NT	< 25	< 25	< 25	< 25	< 25	< 25	< 25 J+	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	
Ethylbenzene			20000	5000	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	NT	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
2-Hexanone			NS	NS	< 5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	<5	<5.0	NT	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
4-Isopropyltoluene			NS	NS	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2.0	NT	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Methyl tert-butyl ether			50000	50000	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2.0	NT	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J+	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	
Methylene chloride			2000	50000	< 2.0	<2.0	<																										

**Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts**

[illegible]

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
2. ft bgs = feet below ground surface.
3. µg/l = micrograms per liter.
4. "c" = The analyte was not detected at a concentration above the specified reporting.
5. SHA = Sanborn Head & Associates.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.
8. * = micrograms CaCO₃ per liter

Qualifying Notes:

- B The analyte found in associated method blank.
- C+ The result has a high bias due to surrogate recovery above upper control limits.
- E The value exceeds the calibration range.
- F+ The result has a high bias due to matrix spike recovery above upper control limits.
- F- The result has a low bias due to matrix spike recovery below lower control limits.
- G The result is estimated due to duplicate precision outside control limits.
- J The reported result is below the laboratory reporting limit and is estimated.
- K- The reported result is estimated.
- K+ The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits.
- K+ The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits.
- R The result is rejected due to gross exceedence of minimum response factor criteria.

**Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts**

[illegible]

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**Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts**

Sample Location:					MW119S	MW119S	MW119S	MW119S	MW119S	MW119S	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW119T	MW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General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
2. ft bgs = feet below ground surface.
3. µg/l = micrograms per liter.
4. " $<$ " = The analyte was not detected at a concentration above the specified reporting.
5. SHA = Sanborn Head & Associates.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.
8. * = micrograms CaCO₃ per liter

Qualifying Notes:

- B The analyte found in associated method blank.
- C+ The result has a high bias due to surrogate recovery above upper control limits.
- E The value exceeds the calibration range.
- F+ The result has a high bias due to matrix spike recovery above upper control limits.
- F- The result has a low bias due to matrix spike recovery below lower control limits.
- G The result is estimated due to duplicate precision outside control limits.
- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.
- K- The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits.
- K+ The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits.
- R The result is rejected due to gross exceedence of minimum response factor criteria.

Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Well Screen Interval (ft bgs): Sample Date: Collected By:					MW119T	MW119T	MW120D	MW120D	MW120D	MW1120D	MW120D	MW120D	MW120D	MW120D	MW120D	MW120D	MW120D	MW120D	MW120D	MW120D	MW120D	MW120D	MW120D	MW120D	MW120D	MW120D	MW120D	MW120D	MW120D	MW120D	MW120D	MW120S	MW120S
Sample Name: Well Screen Interval (ft bgs): Sample Date: Collected By:					42 to 47 4/17/23 GEI	42 to 47 4/2/24 GEI	28 to 38 8/22/07 GEI	28 to 38 10/12/07 GEI	28 to 38 1/17/08 GEI	28 to 38 4/16/08 GEI	28 to 38 7/15/08 GEI	28 to 38 10/22/08 GEI	28 to 38 1/13/09 GEI	28 to 38 4/14/09 GEI	28 to 38 7/15/09 GEI	28 to 38 10/15/09 GEI	28 to 38 4/13/10 GEI	28 to 38 4/22/11 GEI	28 to 38 4/16/12 GEI	28 to 38 4/23/13 GEI	28 to 38 5/1/14 GEI	28 to 38 4/3/15 GEI	28 to 38 4/28/16 GEI	28 to 38 4/18/17 GEI	28 to 38 4/4/18 GEI	28 to 38 4/16/19 GEI	28 to 38 4/17/20 GEI	28 to 38 4/14/21 GEI	28 to 38 4/13/22 GEI	28 to 38 4/18/23 GEI	28 to 38 4/3/24 GEI	5 to 20 8/22/07 GEI	5 to 20 10/12/07 GEI
Analyte	Method	Units	Method 1 GW-2 Standard	Method 1 GW-3 Standard																													
Volatile Organic Compounds (VOCs)					8260	µg/l																											
Acetone			50000	50000	<5.0	<5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 K-	< 10	< 10	< 10	< 10	<10	<10	<10	<10	<10	<10	<10	<10	< 5.0	< 5.0 J+
Benzene			1000	10000	<0.5	<0.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	< 0.50	< 0.50
Bromodichloromethane			6	50000	<1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	
2-Butanone (MEK)			50000	50000	<5.0	<5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	<10	<10	<5.0	<5.0	<5.0	<5.0	< 5.0	< 5.0 J+		
Carbon disulfide			NS	NS	<2.0	<2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	0.56 J J+	< 5.0	
Carbon tetrachloride			2	5000	<1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	
Chlorobenzene			200	1000	<1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	
Chloroethane			NS	NS	<2.0	<2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 2.0	< 2.0	
Chloroform			50	20000	<1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.9 J+	< 1.0	
Chloromethane			NS	NS	<2.0	<2.0	12.0 J+	< 2.0	< 2.0	< 2.0 J+	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	0.85 J	< 2.0	< 2.0	< 2.0	< 2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	10.3 J+	< 2.0
1,4-Dichlorobenzene			60	8000	<1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0		
1,1-Dichloroethane			2000	20000	2.6	2.2	23.0 J+	26.0	23.2	30.8	29.5	21.8	21.4	20.9	18.4	31.1 J+	25.1	23.1	17.0	15.8	16.2	16.2	11.6	11.4	12.8	3.1	16.0	12.0	3.8	1.7	1.6	1.1 J+	4.3
1,2-Dichloroethane			5	20000	<1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0		
1,1-Dichloroethylene			80	30000	2.6	<1.0	15.6 J+	18.9	14.3	17.8	22.0	18.4	16.7	16.9	14.1	24.7 J+	19.4	23.8	15.5	14.8	16.7	16.8	8.2	9.7	14.1	1.3	14	10	1.6	1.6	1.2	< 1.0	< 1.0
cis-1,2-Dichloroethylene			20	50000	<1.0	<1.0	0.70 J J+	< 1.0	1.7	1.9	1.9	1.6	0.70 J	1.6	1.5	1.8 J+	1.7	2.4	1.4	1.1	< 1.0	0.95 J	0.64 J	0.81 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	
trans-1,2-Dichloroethylene			90	50000	<1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0		
1,2-Dichloropropane			3	50000	<1.0	<1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 2.0	< 2.0		
1,4-Dioxane			5000	50000	<250	<250	< 25	< 25	< 25 J+	< 25	< 25	< 25	< 25 J+	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	<130	<130	<130	<130	<130	<250	<250	< 25	< 25	
Ethylbenzene			20000	5000	<1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0		
2-Hexanone			NS	NS	<5.0	<5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	< 5.0	< 5.0 J+		
4-Isopropyltoluene			NS	NS	<2.0	<2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 5.0	< 5.0		
Methyl tert-butyl ether			50000	50000	<2.0	<2.0	6.8 J+	3.9	3.2	4.2	3.8	6.6	2.8	2.4	2.0	7.5	2.2	2.2	1.4	7.1 K-	0.78 J	1.1	< 1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	
Methylene chloride			2000	50000	<2.0	<2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	< 2.0		
Naphthalene			700	20000	<2.0	<2.0	< 5.0	< 5.0	< 5.0	0.68 J	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	&										

**Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts**

[illegible]

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
2. ft bgs = feet below ground surface.
3. µg/l = micrograms per liter.
4. "n" = The analyte was not detected at a concentration above the specified reporting.
5. SHA = Sanborn Head & Associates.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.
8. * = micrograms CaCO₃ per liter

Qualifying Notes:

- B The analyte found in associated method blank.
- C+ The result has a high bias due to surrogate recovery above upper control limits.
- E The value exceeds the calibration range.
- F+ The result has a high bias due to matrix spike recovery above upper control limits.
- F- The result has a low bias due to matrix spike recovery below lower control limits.
- G The result is estimated due to duplicate precision outside control limits.
- J The reported result is below the laboratory reporting limit and is estimated.
- K- The reported result is estimated.
- K+ The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits.
- K+ The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits.
- R The result is rejected due to gross exceedence of minimum response factor criteria.

**Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts**

Sample Location: Sample Name: Well Screen Interval (ft bgs): Sample Date: Collected By:					MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121S	MW121S	MW121S	MW121S	MW121S	MW121S	MW121S	MW121S	MW121S	MW121S			
					MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121D	MW121S	MW121S	MW121S	MW121S	MW121S	MW121S	MW121S	MW121S	MW121S	MW121S
					32.1 to 47.1	32.1 to 47.1	32.1 to 47.1	32.1 to 47.1	32.1 to 47.1	32.1 to 47.1	32.1 to 47.1	32.1 to 47.1	32.1 to 47.1	32.1 to 47.1	32.1 to 47.1	32.1 to 47.1	32.1 to 47.1	32.1 to 47.1	32.1 to 47.1	32.1 to 47.1	32.1 to 47.1	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20	5 to 20
					11/8/17	4/3/18	11/15/18	4/15/19	11/22/19	4/16/20	11/18/20	4/13/21	11/30/21	4/13/22	11/29/22	4/18/23	11/7/23	4/3/24	10/22/07	5 to 20	1/15/08	4/17/08	7/14/08	10/22/08	5 to 20	1/12/09	4/13/09	7/14/09	10/14/09	4/12/10	
Analyte	Method	Units	Method 1 GW-2 Standard	Method 1 GW-3 Standard																											
Volatile Organic Compounds (VOCs)					8260	µg/l																									
Acetone			50000	50000	< 10	< 10	< 10	< 10	< 10	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	<5	<5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0				
Benzene			1000	10000	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.5	<0.5	<0.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50				
Bromodichloromethane			6	50000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
2-Butanone (MEK)			50000	50000	< 10	< 10	< 10	< 10	< 10	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	<5	<5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0				
Carbon disulfide			NS	NS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0				
Carbon tetrachloride			2	5000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
Chlorobenzene			200	1000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
Chloroethane			NS	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0				
Chloroform			50	20000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
Chloromethane			NS	NS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0				
1,4-Dichlorobenzene			60	8000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
1,1-Dichloroethane			20000	20000	47.6	14.8	14.0	18.8	18.0	16	12	18	18	18	38	24	25	2.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
1,2-Dichloroethane			5	20000	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
1,1-Dichloroethylene			80	30000	15.3	7.6	7.0	7.7	8.7	8.6	8.0	7.5	6.3	2.3	7.3	5.5	5.7	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
cis-1,2-Dichloroethylene			20	50000	119	24.8	44.3	73.5	85.4	20	26	37	18	33	11	17	16	2.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
trans-1,2-Dichloroethylene			90	50000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
1,2-Dichloropropane			3	50000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0				
1,4-Dioxane			5000	50000	< 130	< 130	< 130	< 130	< 130	<250	<250	<250	<250	<250	<250	<250	<250	<25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25				
Ethylbenzene			20000	5000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
2-Hexanone			NS	NS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	<5	<5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0				
4-Isopropyltoluene			NS	NS	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0				
Methyl tert-butyl ether			50000	50000	1.4	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	3.3	3.3	2.1	<2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
Methylene chloride			2000	50000	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0				
Naphthalene			700	20000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2.0	< 5.0	5.2	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0				
Tert-amyl methyl ether			NS	NS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0				
1,1,1,2-Tetrachloroethane			10	50000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0				
Tetrachloroethylene (PCE)			20	30000	242	78	47.5	48.2	64.8	87	58	72	52	1.9	54	35	35	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
Tetrahydrofuran			NS	NS	< 10	< 10	< 10	< 10	< 10	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2.0	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10				
Toluene			50000	40000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
1,1,1-Trichloroethane (TCA)			4000	20000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
1,1,2-Trichloroethane			900	50000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
Trichloroethylene (TCE)			5	5000	310	39.7	23.5	31.1	40.0	34	22	40	27	5	32.0	20.0	23	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
Vinyl chloride			2	50000	10.4	<1.0	6.1	9	4.5	<1.0	2.0	1.5	1.0	31.0	3.0	8.6	3.2	2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
m,p-Xylene			3000	5000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
o-Xylene			3000	5000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
Total Xylene			3000	5000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0				
Metals (Total)					6010B	µg/l																									
Arsenic			NS	900	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT				
Iron			NS	NS																											
Manganese			NS	NS																											
Metals (Dissolved)					6010C	µg/l																									
Iron			NS	NS	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT				
Others																															
Methane	8015	µg/l	NS	NS																											

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
2. ft bgs = feet below ground surface.
3. µg/l = micrograms per liter.
4. "n" = The analyte was not detected at a concentration above the specified reporting.
5. SHA = Sanborn Head & Associates.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.
8. * = micrograms CaCO3 per liter

Qualifying Notes:

- B The analyte found in associated method blank.
- C+ The result has a high bias due to surrogate recovery above upper control limits.
- E The value exceeds the calibration range.
- F+ The result has a high bias due to matrix spike recovery above upper control limits.
- F- The result has a low bias due to matrix spike recovery below lower control limits.
- G The result is estimated due to duplicate precision outside control limits.
- J The reported result is below the laboratory reporting limit and is estimated.
- K- The reported result is estimated.
- K- The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits.
- K+ The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits.
- R The result is rejected due to gross exceedence of minimum response factor criteria.

**Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts**

Sample Location: Sample Name: Well Screen Interval (ft bgs): Sample Date: Collected By:					MW121S 5 to 20 4/20/11 GEI	MW121S 5 to 20 4/16/12 GEI	MW121S 5 to 20 4/23/13 GEI	MW121S 5 to 20 4/30/14 GEI	MW121S 5 to 20 4/2/15 GEI	MW121S 5 to 20 4/28/16 GEI	MW121S 5 to 20 4/17/17 GEI	MW121S 5 to 20 4/3/18 GEI	MW121S 5 to 20 4/15/19 GEI	MW121S 5 to 20 4/16/20 GEI	MW121S 5 to 20 4/13/21 GEI	MW121S 5 to 20 4/13/22 GEI	MW121S 5 to 20 4/13/22 GEI	MW121S 5 to 20 4/3/24 GEI	MW122 4 to 16 1/30/08 GEI	MW122 4 to 16 4/17/08 GEI	MW122 4 to 16 7/14/08 GEI	MW122 4 to 16 10/22/08 GEI	MW122 4 to 16 1/12/09 GEI	MW122 4 to 16 4/13/09 GEI	MW122 4 to 16 7/15/09 GEI	MW122 4 to 16 10/14/09 GEI	MW122 4 to 16 4/12/10 GEI	MW122 4 to 16 10/27/10 GEI	MW122 4 to 16 4/20/11 GEI	MW122 4 to 16 11/16/11 GEI	MW122 4 to 16 4/17/12 GEI	MW122 4 to 16 11/12/12 GEI	MW122 4 to 16 4/23/13 GEI	
Analyte	Method	Units	Method 1 GW-2 Standard	Method 1 GW-3 Standard																														
Volatile Organic Compounds (VOCs)					8260	µg/l																												
Acetone			50000	50000	< 5.0	8.2 K-	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 5.0 J+	9.6 J	11.1	7.2	5.7	< 5.0	< 5.0 F-	< 10	3.8 J+	< 5.0	17.8	< 5.0	< 5.0	< 25 K-	< 5.0	
Benzene			1000	10000	< 0.50	< 0.50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.50	< 0.50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.50 J	< 1.0	0.46 J	< 0.50	< 0.50	< 0.50	0.23 J	< 1.0	< 0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 2.5	< 2.5	
Bromodichloromethane			6	50000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.1 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
2-Butanone (MEK)			50000	50000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 5.0 J+	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 25 K-	< 25		
Carbon disulfide			NS	NS	< 5.0	< 5.0	13.4	< 5.0	< 5.0	< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0 F-	< 10	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 25	< 25		
Carbon tetrachloride			2	5000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chlorobenzene			200	1000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloroethane			NS	NS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0 F-	< 4.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Chloroform			50	20000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	0.61 J	< 1.0	< 1.0	0.75 J	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloromethane			NS	NS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0 F-	< 4.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 4.0	< 2.0	< 1.0	
1,4-Dichlorobenzene			60	8000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
1,1-Dichloroethane			2000	20000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	19.3	30.4 C+	10.1	15.0	16.0	25.8	21.2	20.8	29.6	20.3	19.1	15.2	17.2	14.4	11.1	
1,2-Dichloroethane			5	20000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1-Dichloroethylene			80	30000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	4.0	9.0 C+	1.4	4.4	3.4	6.1	5.3 F-	6.6	7.3	4.6	8.3	4.1	6.4	4.7 J	4.1 J	
cis-1,2-Dichloroethylene			20	50000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	60.6	70.7 C+	34.0	62.5	91.5	61.9	39.4	109.0	58.6	117	45.5	66.4	61.5	84.7	56.2	
trans-1,2-Dichloroethylene			90	50000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.87 J	< 2.0	< 1.0	< 1.0	0.93 J	< 1.0	< 1.0	< 2.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloropropane			3	50000	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
1,4-Dioxane			5000	50000	< 25	< 25	< 50	< 25 K-	< 25	< 25	< 130	< 130	< 130	< 250	< 250	< 250	< 250	< 250	< 25	< 50	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	
Ethylbenzene			20000	5000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
2-Hexanone			NS	NS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 J+	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 25	< 25	
4-Isopropyltoluene			NS	NS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 25	< 25	
Methyl tert-butyl ether			50000	50000	< 1.0	< 1.0	< 1.0 K-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	3.3	3.9 C+	1.9	5.6	2.5	3.2	3.3	2.9	2.3	2.7	2.9	2.1	2.7	2.2 J	< 5.0 K-	
Methylene chloride			2000	50000	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	
Naphthalene			700	20000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 10	2.6 J	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 25	< 25	
Tert-amyl methyl ether			NS	NS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	
1,1,1,2-Tetrachloroethane			10	50000	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 25	< 25	
Tetrachloroethylene (PCE)			20	30000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	477	691 C+	122	352 G	312	499 G	677	518	856	532	656	581	1000	811	938	
Tetrahydrofuran			NS	NS	< 10	< 10	< 10	< 10 G	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 2.0	< 2.0	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 50 F- K-	< 50	
Toluene			50000	40000	< 1.0	< 1.0	< 1.0	6.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.48 J	< 2.0	2.8	3.7	0.64 J	2.4	1.6	< 4.0	6.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1,1-Trichloroethane (TCA)			4000	20000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.4	3.4 C+	0.63 J	5.1	1.1	1.7	1.7	< 2.0	1.5	< 1.0	7.5	1.4	2.2	< 5.0	< 5.0	
1,1,2-Trichloroethane			900	50000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Trichloroethylene (TCE)			5	5000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	177	106 C+	27.0	56.9	59.6	91.7	90.2	81.1	119.0	82.1	73.1	79.0	103	88.0	93.4	
Vinyl chloride			2	50000	< 1.0	< 1.0	< 1																											

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
2. ft bgs = feet below ground surface.
3. µg/l = micrograms per liter.
4. "n" = The analyte was not detected at a concentration above the specified reporting.
5. SHA = Sanborn Head & Associates.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.
8. * = micrograms CaCO3 per liter

Qualifying Notes:

- B The analyte found in associated method blank.
- C+ The result has a high bias due to surrogate recovery above upper control limits.
- E The value exceeds the calibration range.
- F+ The result has a high bias due to matrix spike recovery above upper control limits.
- F- The result has a low bias due to matrix spike recovery below lower control limits.
- G The result is estimated due to duplicate precision outside control limits.
- J The reported result is below the laboratory reporting limit and is estimated.
- K- The reported result is estimated.
- K+ The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits.
- K+ The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits.
- R The result is rejected due to gross exceedence of minimum response factor criteria.

**Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts**

[illegible]

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
2. ft bgs = feet below ground surface.
3. µg/l = micrograms per liter.
4. " $<$ " = The analyte was not detected at a concentration above the specified reporting.
5. SHA = Sanborn Head & Associates.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.
8. * = micrograms CaCO₃ per liter

Qualifying Notes:

- B The analyte found in associated method blank.
- C+ The result has a high bias due to surrogate recovery above upper control limits.
- E The value exceeds the calibration range.
- F+ The result has a high bias due to matrix spike recovery above upper control limits.
- F- The result has a low bias due to matrix spike recovery below lower control limits.
- G The result is estimated due to duplicate precision outside control limits.
- J The reported result is below the laboratory reporting limit and is estimated.
- K- The reported result is estimated.
- K+ The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits.
- K+ The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits.
- R The result is rejected due to gross exceedence of minimum response factor criteria.

Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location:					MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202
Sample Name:					MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202	MW202
Well Screen Interval (ft bgs):					10.5 to 20.5	10.5 to 20.5	10.5 to 20.5	10.5 to 20.5	10.5 to 20.5	10.5 to 20.5	10.5 to 20.5	10.5 to 20.5	10.5 to 20.5	10.5 to 20.5	10.5 to 20.5	10.5 to 20.5	10.5 to 20.5	10.5 to 20.5	10.5 to 20.5	10.5 to 20.5	10.5 to 20.5	10.5 to 20.5	10.5 to 20.5	10.5 to 20.5	10.5 to 20.5	10.5 to 20.5	
Sample Date:					7/19/07	10/12/07	1/11/08	4/15/08	7/15/08	10/21/08	1/13/09	4/15/09	7/14/09	10/14/09	4/12/10	4/22/11	4/17/12	4/23/13	5/1/14	4/2/15	4/29/16	4/17/17	4/4/18	4/16/19	4/17/20	4/14/21	4/13/22
Collected By:					GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	
Analyte	Method	Units	Method 1 GW-2 Standard	Method 1 GW-3 Standard																							
Volatile Organic Compounds (VOCs)					8260	µg/l																					
Acetone			50000	50000	NT	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 10	< 10	< 10	9.7	<10	<10	<10	
Benzene			1000	10000	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 J+	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<0.50	<0.50	<0.50	<0.50	
Bromodichloromethane			6	50000	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J+	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	
2-Butanone (MEK)			50000	50000	NT	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	<10	<10	<5.0	<5.0	
Carbon disulfide			NS	NS	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	<2.0	<2.0	<2.0	<2.0	
Carbon tetrachloride			2	5000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J+	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	
Chlorobenzene			200	1000	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	
Chloroethane			NS	NS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	<1.0	<1.0	<2.0	<2.0	
Chloroform			50	20000	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.89 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	
Chloromethane			NS	NS	NT	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	<1.0	<1.0	<2.0	<2.0	
1,4-Dichlorobenzene			60	8000	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	
1,1-Dichloroethane			2000	20000	0.50 J	< 1.0	< 1.0	0.46 J	< 1.0	< 1.0	0.34 J	< 1.0	< 1.0	< 1.0	3.1	5.0	1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloroethane			5	20000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J+	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1-Dichloroethylene			80	30000	1.1	< 1.0	< 1.0	2.9	2.8	1.6	1.9	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	15.5	< 1.0	2.4	0.93 J	0.92 J	< 1.0	0.46 J	1.1	1.5	< 1.0	
cis-1,2-Dichloroethylene			20	50000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
trans-1,2-Dichloroethylene			90	50000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloropropane			3	50000	NT	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0 J+	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	<1.0	<1.0	<1.0	<1.0	
1,4-Dioxane			5000	50000	NT	< 25	< 25	< 25	< 25	< 25	< 25 J+	< 25 J+	< 25	< 25	< 25	< 25	< 25 K-	< 50	< 50	< 25	< 25	<130	<130	<130	<250	<250	
Ethylbenzene			20000	5000	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
2-Hexanone			NS	NS	NT	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	<5.0	<5.0	<5.0	<5.0	
4-Isopropyltoluene			NS	NS	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	11.3	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	
Methyl tert-butyl ether			50000	50000	NT	< 1.0	< 1.0	1.2	< 1.0	< 1.0	0.92 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 K-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	
Methylene chloride			2000	50000	NT	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Naphthalene			700	20000	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Tert-amyl methyl ether			NS	NS	NT	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
1,1,1,2-Tetrachloroethane			10	50000	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Tetrachloroethylene (PCE)			20	30000	17.2	14.6	21.8	55.6	48.5	39.4	37.5	53.5	52.6	61.8	84.9	86.5	20.6	37.0	31.4	28.1	40.8	20.0	39.4	68.9	20.0	14.0	5.4
Tetrahydrofuran			NS	NS	NT	< 10	< 10	< 10	< 10	< 10	< 10 J+	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 2.0	< 2.0	
Toluene			50000	40000	NT	< 1.0	< 1.0																				

**Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts**

Sample Location: Sample Name: Well Screen Interval (ft bgs): Sample Date: Collected By:					MW202	MW202	MW203	MW203	MW203R	MW-3	MW-3	MW-3	MW-3	MW3	MW3	MW-3	MW3	MW3	MW-3	MW3	MW-3	MW3	MW-3	MW3	MW-3	MW-CS1	SH-1	SH-3	SH-4	SH-MW1	SH-MW-1	SH-MW-1	SH-MW1	SHMW1	SH-MW2			
					MW202	MW202	MW203	MW203	MW203R	MW-3	MW-3	MW-3	MW-3	MW3	MW3	MW-3	MW3	MW-3	MW3	MW-3	MW3	MW-3	MW3	MW-3	MW3	MW-3	MW3	MW-3	MW-CS1	SH-1	SH-3	SH-4	SH-MW1	SH-MW-1	SH-MW-1	SH-MW1	SHMW1	SH-MW2
					10.5 to 20.5	10.5 to 20.5	6 to 18	6 to 18	13 to 23	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	9 to 14	8 to 13	11 to 16	10 to 30	10 to 30	10 to 30	10 to 30	10 to 30	10 to 25
					4/18/23	4/3/24	7/19/07	4/15/08	4/4/24	7/1/02	8/9/04	5/23/06	1/17/07	4/1/07	4/15/08	7/15/08	10/21/08	1/14/09	4/14/09	7/15/09	10/16/09	5/23/07	Geolnsight	Geolnsight	Geolnsight	Geolnsight	Geolnsight	Geolnsight	Geolnsight	Geolnsight	Geolnsight	Geolnsight	Geolnsight	Geolnsight	Geolnsight	Geolnsight	Geolnsight	Geolnsight
Analyte	Method	Units	Method 1 GW-2 Standard	Method 1 GW-3 Standard																																		
Volatile Organic Compounds (VOCs)					8260	µg/l																																
Acetone			50000	50000	<5.0	<5.0	NT	< 250	<250	< 2500	< 2000	< 5.0	< 5.0	< 130	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 4000	< 2000	30.0	< 2500	< 5.0	< 5.0	< 5.0	< 5.0	< 250				
Benzene			10000	10000	<0.50	<0.5	NT	< 25	<25	< 250	< 100	0.37 J	0.71	< 13	<0.50	< 0.50	<0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 200	< 100	< 0.50	< 250	< 0.50	0.61	< 0.50	0.33 J	< 25				
Bromodichloromethane			6	50000	<1.0	<1.0	NT	< 50	<5.00	< 250	< 100	< 1.0	< 1.0	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 200	< 100	< 1.0	< 250	< 1.0	< 1.0	< 1.0	< 1.0	< 25					
2-Butanone (MEK)			50000	50000	<5.0	<5.0	NT	<250	<250	< 2500	< 1000	< 5.0	< 5.0	< 130	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 2000	< 1000	< 5.0	< 2500	< 5.0	< 5.0	< 5.0	< 5.0	< 250					
Carbon disulfide			NS	NS	<2.0	<2.0	NT	<250	<100	< 2500	< 5.0	< 5.0	< 5.0	< 130	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1000	< 5.0	< 5.0	< 2500	< 5.0	< 5.0	< 5.0	< 5.0	< 250					
Carbon tetrachloride			2	5000	<1.0	<1.0	< 1.0	< 50	<5.00	< 250	< 100	< 1.0	< 1.0	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 200	< 100	< 1.0	< 250	< 1.0	< 1.0	< 1.0	< 1.0	< 25					
Chlorobenzene			200	1000	<1.0	<1.0	NT	< 50	<5.00	< 250	< 100	< 1.0	0.52 J	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 200	< 100	< 1.0	< 250	< 1.0	0.52 J	< 1.0	< 1.0	< 25					
Chloroethane			NS	NS	<2.0	<2.0	< 2.0	< 100	<100	< 5.0	< 200	< 2.0	< 2.0	< 20	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 400	< 200	< 2.0	< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0					
Chloroform			50	20000	<1.0	<1.0	NT	< 50	<5.00	< 380	< 100	2.1	3.4	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 200	< 100	13.3	< 380	2.1	4.6	1.7	3.4	< 38					
Chloromethane			NS	NS	<2.0	<2.0	NT	< 100	<100	< 1200	< 200	< 2.0	< 2.0	< 50	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 400	< 200	< 2.0	< 1200	< 2.0	< 2.0	< 2.0	< 2.0	< 120					
1,4-Dichlorobenzene			60	8000	<1.0	<1.0	NT	< 50	<5.00	< 1200	< 100	< 1.0	< 1.0	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 200	< 100	< 1.0	< 1200	< 1.0	< 1.0	< 1.0	< 1.0	< 120					
1,1-Dichloroethane			2000	20000	<1.0	<1.0	22.2	13.0 J	<5.00	< 380	< 100	< 1.0	< 1.0	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 200	< 100	15.9	< 380	11.4	12.0	8.5	12.7	< 38					
1,2-Dichloroethane			5	20000	<1.0	<1.0	< 1.0	< 50	<5.00	< 250	< 100	< 1.0	< 1.0	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 200	< 100	103	< 250	<1.0	< 1.0	< 1.0	< 1.0	< 25					
1,1-Dichloroethylene			80	30000	<1.0	<1.0	76.4	36.6 J	<5.00	< 250	< 100	6.9	5.6	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 200	< 100	556 E	< 250	11.7	19.3	9.0	24.4	< 25					
cis-1,2-Dichloroethylene			20	50000	<1.0	<1.0	102	78.9	<5.00	< 250	< 100	< 1.0	1.9	< 25	< 1.0	0.56 J	< 1.0	< 1.0	< 1.0	0.43 J	2.3 J+	< 1.0	< 200	< 100	16.6	< 250	2.1	7.3	11.2	2.7	< 25							
trans-1,2-Dichloroethylene			90	50000	<1.0	<1.0	1.2	< 50	<5.00	< 380	< 100	< 1.0	< 1.0	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 200	< 100	< 1.0	< 380	< 1.0	< 1.0	< 1.0	< 1.0	< 38						
1,2-Dichloropropane			3	50000	<1.0	<1.0	NT	< 100	<5.00	< 880	< 100	< 2.0	< 2.0	< 50	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 200	< 100	< 2.0	< 880	< 2.0	< 2.0	< 2.0	< 2.0	< 88					
1,4-Dioxane			5000	50000	<250	<250	NT	< 1300	<12000	NT	NT	< 25	< 25	< 630	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	NT	NT	57700	NT	< 25	< 25 R	< 25	< 25	NT					
Ethylbenzene			20000	5000	<1.0	<1.0	NT	< 50	< 50	< 250	< 100	< 1.0	< 1.0	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 200	< 100	< 1.0	< 250	< 1.0	< 1.0	< 1.0	< 1.0	< 25					
2-Hexanone			NS	NS	<5.0	<5.0	NT	<250	<250	< 2500	< 1000	< 5.0	< 5.0	< 130	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 2000	< 1000	5.3	NT	< 5.0	< 5.0	< 5.0	< 5.0	NT					
4-Isopropyltoluene			NS	NS	<2.0	<2.0	NT	<250	<100	< 250	< 100	< 5.0	< 5.0	< 130	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 200	< 100	< 5.0	< 250	< 5.0	< 5.0	< 5.0	< 5.0	< 25					
Methyl tert-butyl ether			50000	50000	<2.0	<2.0	NT	< 50	<100	< 5.0	< 100	< 1.0	< 1.0	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 200	< 100	< 1.0	< 5.0	< 1.0	0.71 J J+	< 1.0	0.74 J J+	< 5.0					
Methylene chloride			2000	50000	<2.0	<2.0	NT	< 100	<100	< 2500	< 1000	< 2.0	< 2.0	71.5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1000	< 1000	12.2	< 2500	< 2.0	< 2.0	< 2.0	< 2.0	< 250					
Naphthalene			700	20000	<2.0	<2.0	NT	< 250	<100	< 1200	< 100	< 5.0	< 5.0	< 130	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 200	< 100	< 5.0	< 200	< 5.0	< 5.0	< 5.0	< 5.0	< 120					
Tert-amyl methyl ether			NS	NS	<2.0	<2.0	NT	< 100	<100	NT	NT	< 2.0	< 2.0	< 50	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	NT	1.9 J	NT	< 2.0	< 2.0	< 2.0	< 2.0	NT				
1,1,1,2-Tetrachloroethane			10	50000	<1.0	<1.0	NT	< 250	< 50	< 250	< 100	1.9 J	4.4 J	< 130	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 200	< 100	40.4	< 250	< 5.0	< 5.0	< 5.0 F+	< 5.0	< 25					
Tetrachloroethylene (PCE)			20	30000	12.0	9.4	15500	11500	7500	16000	16200	22100	51900	6550	400	427	606	176	141	280	391	< 1.0	49700	19500	7240	21000	16200	28300	31700 F+	48900	2000							
Tetrahydrofuran			NS	NS	<2.0	<2.0	NT	< 50	<100	NT	NT	< 10	< 10	< 250	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NT	NT	< 10	NT	< 10	< 10	< 10	< 10	NT					
Toluene			50000	40000	<1.0	<1.0	NT	< 50	< 380	< 100	< 100	0.62 J	< 1.0	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 200	< 100	1.8	< 380	0.61 J	0.47 J	< 1.0	0.36 J	< 38					
1,1,1-Trichloroethane (TCA)			4000	20000	1.2	1.4	1710	988	< 250	< 100	< 100	39.1	68.7	11.1 J	< 1.0	0.43 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1150	2070	7610	< 250	34.5	69.7 J+	31.4	27.9 J+	660					
1,1,2-Trichloroethane			900	50000	<1.0	<1.0	0.66 J	< 50	< 50	< 380	< 100	< 1.0	< 1.0	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 200	< 100	172	< 380	< 1.0	< 1.0	< 1.0	< 1.0	< 38					
Trichloroethylene (TCE)			5	5000	<1.0	<1.0	979	618	120	< 250	< 100	86.6	247	13.8 J	1.9	3.5	4.2	1.3	1.3	2.7	3.6	< 1.0	906	1440	758													

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
2. ft bgs = feet below ground surface.
3. µg/l = micrograms per liter.
4. " $<$ " = The analyte was not detected at a concentration above the specified reporting.
5. SHA = Sanborn Head & Associates.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.
8. * = micrograms CaCO₃ per liter

Qualifying Notes:

- B The analyte found in associated method blank.
- C+ The result has a high bias due to surrogate recovery above upper control limits.
- E The value exceeds the calibration range.
- F+ The result has a high bias due to matrix spike recovery above upper control limits.
- F- The result has a low bias due to matrix spike recovery below lower control limits.
- G The result is estimated due to duplicate precision outside control limits.
- J The reported result is below the laboratory reporting limit and is estimated.
- K- The reported result is estimated.
- K- The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits.
- K+ The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits.
- R The result is rejected due to gross exceedence of minimum response factor criteria.

**Table 4-2. Chemical Testing Results - GEI Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts**

Sample Location: Well Screen Interval (ft bgs): Sample Date: Collected By:					SH-MW2	SH-MW-2	SH-MW-2	SH-MW2	SHMW2	SH-MW2	SH-MW2	SH-MW2	SH-MW2	SH-MW2	SH-MW2R	SH-MW3	SH-MWV-3	SH-MW-3	SH-MW3	SHMW3	SHMW3	SHMW3	SHMW3	SH-MW3	SH-MW3	SH-MW3	SH-MW3	SH-MW3	COBBLE-JR-1
					SH-MW2 10 to 25 8/16/04 Geolnsight	SH-MW-2 10 to 25 5/23/06 GEI	SH-MW-2 10 to 25 10/4/06 GEI	SH-MW2 10 to 25 1/16/07 GEI	SHMW2 10 to 25 4/16/07 GEI	SH-MW2 10 to 25 7/19/07 GEI	SH-MW2 10 to 25 4/28/17 GEI	SH-MW2 10 to 25 4/4/18 GEI	SH-MW2 10 to 25 4/16/19 GEI	SH-MW2R 10 to 23 4/3/24 GEI	SH-MW3 10 to 24 7/8/02 SHA	SH-MWV-3 10 to 24 5/23/06 GEI	SH-MW-3 10 to 24 10/4/06 GEI	SH-MW3 10 to 24 1/17/07 GEI	SHMW3 10 to 24 4/12/07 GEI	SHMW3 10 to 24 4/15/08 GEI	SHMW3 10 to 24 4/13/10 GEI	SHMW3 10 to 24 4/21/11 GEI	SH-MW3 10 to 24 4/16/12 GEI	SH-MW3 10 to 24 4/23/13 GEI	SH-MW3 10 to 24 4/30/14 GEI	SH-MW3 10 to 24 4/2/15 GEI	COBBLE-JR-1 Unknown 6/25/07 GEI		
Analyte	Method	Units	Method 1 GW-2 Standard	Method 3 GW-3 Standard																									
Volatile Organic Compounds (VOCs)					8260	µg/l																							
Acetone			50000	50000	< 2000	< 5.0	< 5.0	< 5.0	< 10	NT	<10	<10	<10	<100	< 2500	< 5.0	< 5.0	< 500	< 5.0	< 500	< 5.0	< 500	< 250	< 500	< 10	< 500	5.8		
Benzene			1000	10000	< 100	< 0.50	< 0.50	< 0.50	< 1.0	NT	<0.50	<0.50	<0.50	<10	< 250	< 0.50	< 0.50	< 50	< 0.50	< 500	< 0.50	< 50	< 25	< 25	< 0.50	< 25	< 0.50		
Bromodichloromethane			6	50000	< 100	< 1.0	< 1.0	< 1.0	< 2.0	NT	<1.0	<1.0	<1.0	<20	< 250	< 1.0	< 1.0	< 100	< 1.0	< 100	< 1.0	< 100	< 50	< 50	< 1.0	< 50	0.32 J		
2-Butanone (MEK)			50000	50000	< 1000	< 5.0	< 5.0	< 5.0	< 10	NT	<10	<10	<10	<100	< 2500	< 5.0	< 5.0	< 500	< 5.0	< 500	< 5.0	< 500	< 250	< 250	< 5.0	< 250	< 5.0		
Carbon disulfide			NS	NS	< 5.0	< 5.0	< 5.0	< 5.0	< 10	NT	<2.0	<2.0	<2.0	<40	< 2500	< 5.0	< 5.0	< 500	< 5.0	< 500	< 5.0	< 500	< 250	< 250	< 5.0	< 250	< 5.0		
Carbon tetrachloride			2	5000	< 100	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	<1.0	<1.0	<1.0	<20	< 250	< 1.0	< 1.0	< 100	< 1.0	< 100	< 1.0	< 100	< 50	< 50	< 1.0	< 50	< 1.0		
Chlorobenzene			200	1000	< 100	< 1.0	< 1.0	< 1.0	< 2.0	NT	<1.0	<1.0	<1.0	<20	< 250	< 1.0	< 1.0	< 100	< 1.0	< 100	< 1.0	< 100	< 50	< 50	< 1.0	< 50	< 1.0		
Chloroethane			NS	NS	< 200	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	<1.0	<1.0	<1.0	<40	< 5.0	< 2.0	< 2.0	< 200	< 2.0	< 200	< 2.0	< 200	< 100	< 100	< 2.0	< 100	< 2.0		
Chloroform			50	20000	< 100	< 1.0	< 1.0	< 1.0	< 2.0	NT	<1.0	<1.0	<1.0	<20	< 380	0.88 J	0.81 J	< 100	1.1	< 100	< 1.0	< 100	< 50	< 1.0	< 50	< 1.0	5.6		
Chloromethane			NS	NS	< 200	< 2.0	< 2.0	< 2.0	< 4.0	NT	<1.0	<1.0	<1.0	<40	< 1200	< 2.0	< 2.0	< 200	< 2.0	< 200	< 2.0	< 200	< 100	< 100	< 2.0	< 100	< 2.0		
1,4-Dichlorobenzene			60	8000	< 100	< 1.0	< 1.0	< 1.0	< 2.0	NT	<1.0	<1.0	<1.0	<20	< 1200	< 1.0	< 1.0	< 100	< 1.0	< 100	< 1.0	< 100	< 50	< 50	< 1.0	< 50	< 1.0		
1,1-Dichloroethane			2000	20000	< 100	1.0	20.9	5.7	< 2.0	12.4	<1.0	<1.0	<1.0	<20	< 380	21.6	36.5	< 100	24.5	< 100	19.5	< 100	< 50	< 50	12.6	24.0 J	< 1.0		
1,2-Dichloroethane			5	20000	< 100	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	<1.0	<1.0	<1.0	<20	< 250	< 1.0	< 1.0	< 100	< 1.0	< 100	< 1.0	< 100	< 50	< 50	< 1.0	< 50	< 1.0		
1,1-Dichloroethylene			80	30000	< 100	10.1	45.0	9.8	2.1	23.8	0.65 J	<1.0	<1.0	<20	< 250	91.0	84.4	< 100	91.3	< 100	14.2	< 100	< 50	< 50	12.5	< 50	< 1.0		
cis-1,2-Dichloroethylene			20	50000	< 100	3.9	45.7	14.7	1.4 J	26.1	1.7	2.3	3.1	<20	< 250	37.2	102	< 100	39.8	34.5 J	19.8	< 100	< 50	< 50	40.1	27.7 J	< 1.0		
trans-1,2-Dichloroethylene			90	50000	< 100	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	<1.0	<1.0	<1.0	<20	< 380	< 1.0	1.1	< 100	< 1.0	< 100	< 1.0	< 100	< 50	< 50	< 1.0	< 50	< 1.0		
1,2-Dichloropropane			3	50000	< 100	< 2.0	< 2.0	< 2.0	< 4.0	NT	<1.0	<1.0	<1.0	<20	< 880	< 2.0	< 2.0	< 200	< 2.0	< 200	< 2.0	< 200	< 100	< 100	< 2.0	< 100	< 2.0		
1,4-Dioxane			5000	50000	NT	< 25	< 25 R	< 25	< 5.0	NT	<130	<130	<130	<5000	NT	< 25	< 25 R	< 2500	< 25	< 2500	< 25	< 2500	< 1300	< 2600	< 25 K-	<1300	< 25		
Ethylbenzene			20000	5000	< 100	< 1.0	< 1.0	< 1.0	< 2.0	NT	<1.0	<1.0	<1.0	<20	< 250	< 1.0	< 1.0	180	< 1.0	< 100	< 1.0	< 100	< 50	< 50	< 1.0	< 50	< 1.0		
2-Hexanone			NS	NS	< 1000	< 5.0	< 5.0	< 5.0	< 10	NT	<5.0	<5.0	<5.0	<100	NT	< 5.0	< 5.0	< 500	< 5.0	< 500	< 5.0	< 500	< 250	< 250	< 5.0	< 250	< 5.0		
4-Isopropyltoluene			NS	NS	< 100	< 5.0	< 5.0	< 5.0	< 10	NT	<2.0	<2.0	<2.0	<40	< 250	< 5.0	< 5.0	< 500	< 5.0	< 500	< 5.0	< 500	< 250	< 250	< 5.0	< 250	< 5.0		
Methyl tert-butyl ether			50000	50000	< 100	< 1.0	8.7 J+	1.4	< 2.0	NT	<1.0	<1.0	<1.0	<40	< 5.0	5.1	8.2 J+	< 100	2.4 J+	< 100	0.83 J	< 100	< 50	< 50 K-	< 1.0	< 50	< 1.0		
Methylene chloride			7000	50000	< 1000	< 2.0	< 2.0	< 2.0	2.3 J	NT	<2.0	<2.0	<2.0	<40	< 2500	< 2.0	< 2.0	< 200	< 2.0	< 200	< 2.0	450	< 100	< 2.0	< 100	< 2.0	< 100	< 2.0	
Naphthalene			2000	20000	< 100	< 5.0	< 5.0	< 5.0	< 10	NT	<5.0	<5.0	<5.0	<40	< 1200	< 5.0	< 5.0	392 J	< 5.0	< 500	< 5.0	< 500	< 250	< 250	< 5.0	< 250	< 5.0		
Tert-amyl methyl ether			NS	NS	NT	< 2.0	< 2.0	< 2.0	< 4.0	NT	<2.0	<2.0	<2.0	<40	NT	< 2.0	< 2.0	< 200	< 2.0	< 200	< 2.0	< 200	< 100	< 100	< 2.0	< 100	< 2.0		
1,1,1,2-Tetrachloroethane			10	50000	< 100	< 5.0	< 5.0	< 5.0 F+	< 10	NT	<1.0	<1.0	<1.0	<20	< 250	< 5.0	< 5.0	< 500	< 5.0	< 500	< 5.0	< 500	< 250	< 250	< 5.0	< 50	< 5.0		
Tetrachloroethylene (PCE)			20	30000	7170	1730	7190	2880 F+	726	3320	365	459	439	2500	26000	16900	28300	29700	34000	15200	20300	16900	7310	9650	14500	12800	< 1.0		
Tetrahydrofuran			NS	NS	NT	< 10	< 10	< 10	< 20	NT	<10	<10	<10	<40	NT	< 10	< 10	< 1000	< 10	< 1000	< 10	< 1000	< 500	< 500	< 10 G	< 500	< 10		
Toluene			50000	40000	< 100	< 1.0	< 1.0	< 1.0	< 2.0	NT	<1.0	<1.0	<1.0	<20	< 380	< 1.0	< 1.0	< 100	< 1.0	< 100	< 1.0	< 100	< 50	< 50	< 1.0	< 50	< 1.0		
1,1,1-Trichloroethane (TCA)			4000	20000	1550	158	1330	360	44.1	539	6.8	7.9	14.8	<20	1200	989	1680	806	621 E J+	119	19.8 J	< 100	83.0	< 50	48.0	49.9 J	< 1.0		
1,1,2-Trichloroethane			900	50000	< 100	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	<1.0	<1.0	<1.0	<20	< 380	< 1.0	< 1.0	< 100	< 1.0	< 100	< 1.0	< 100	< 50	< 50	< 1.0	< 50	< 1.0		
Trichloroethylene (TCE)			5	5000	572	92.8	486	171	26.5	354	13.2	14.8	16.7	42	870	482	1030	709	1030	306	383.0	342	152	157	231	218	< 1.0		
Vinyl chloride			2	50000	< 100	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	<1.0	<1.0	<1.0	<20	< 5.0	< 1.0	< 1.0	< 100	0.83 J	< 100	< 1.0	< 100	< 50	< 50	< 1.0	< 50	< 1.0		
m,p-Xylene			3000	5000	< 200	< 1.0	< 1.0	< 1.0	< 2.0	NT	<1.0	<1.0	<1.0	<40	< 250	< 1.0	< 1.0	484	< 1.0	< 100	< 1.0	< 100	< 50	< 50	< 1.0	< 50	< 1.0		
o-Xylene			3000	5000	< 100	< 1.0	< 1.0	< 1.0	< 2.0	NT	<1.0	<1.0	<1.0	<20	< 250	< 1.0	< 1.0	< 100	< 1.0	< 100	< 1.0	< 100	< 50	< 50	< 1.0	< 50	< 1.0		
Total Xylene			3000	5000	ND	< 1.0	< 1.0	< 1.0	< 2.0	NT	<1.0	<1.0	<1.0	<20	ND	< 1.0	< 1.0	543	< 1.0	< 100	< 1.0	< 100	< 50	< 50	< 1.0	< 50	< 1.0		
Metals (Total)					6010B	µg/l												< 10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
																		255											
																		NT											
Metals (Dissolved)					6010C	µg/l																							
Others																													
																										</			

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
2. ft bgs = feet below ground surface.
3. µg/l = micrograms per liter.
4. "n" = The analyte was not detected at a concentration above the specified reporting.
5. SHA = Sanborn Head & Associates.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.
8. * = micrograms CaCO3 per liter

Qualifying Notes:

- B The analyte found in associated method blank.
- C+ The result has a high bias due to surrogate recovery above upper control limits.
- E The value exceeds the calibration range.
- F+ The result has a high bias due to matrix spike recovery above upper control limits.
- F- The result has a low bias due to matrix spike recovery below lower control limits.
- G The result is estimated due to duplicate precision outside control limits.
- J The reported result is below the laboratory reporting limit and is estimated.
- K- The reported result is estimated.
- K+ The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits.
- K+ The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits.
- R The result is rejected due to gross exceedence of minimum response factor criteria.

Table 4-3. Chemical Testing Results - GLX Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Well Screen Interval (ft bgs): Sample Date: Collected By:			KE-114		KE-115		KE-116		KE-117			MW-5R	WashSW ^(b)	KE-202D
			KE-114	KE-114	KE-115	KE-115	KE-116	KE-116	KE-117	KE-117 ^(a)	KE-117	MW-5R	WashSW ^(b)	KE-202D
			5 to 30	5 to 30	5 to 30	5 to 30	5 to 30	5 to 30	5 to 20	5 to 20	5 to 20	5 to 30	Vac-Ex	~25 to 35
			9/27/12	2/6/14	9/27/12	2/6/14	9/27/12	2/6/14	9/27/12	2/6/14	4/9/14	2/6/14	2/6/14	4/8/14
Analyte	Method	Units	Kleinfelder	Kleinfelder	Kleinfelder	Kleinfelder	Kleinfelder	Kleinfelder	Kleinfelder	Kleinfelder	Kleinfelder	Kleinfelder	Kleinfelder	Kleinfelder
Volatile Organic Compounds (VOCs)	SW-846 8260C	µg/l												
Acetone			< 10	< 10	< 10	< 10	< 10	< 10	56	< 10	< 20	< 10	< 10	< 20
Benzene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	3.8	< 1.0	< 1.0	< 1.0	< 1.0
Carbon disulfide			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	73	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	12	< 1.0	< 1.0	4.4	< 1.0
1,1-Dichloroethylene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	8.0	< 1.0	< 1.0	1.8	< 1.0
cis-1,2-Dichloroethylene			< 1.0	< 1.0	1.8	1.0	< 1.0	< 1.0	< 5.0	410	2.8	< 1.0	26	12
Ethylbenzene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	7.2	< 1.0
Methyl tert-butyl ether			< 1.0	< 1.0	1.4	2.4	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethylene (PCE)			< 1.0	1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	760	4.3	< 1.0	2000	33
Tetrahydrofuran			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10	< 2.0	< 2.0	< 2.0	3.3	< 2.0
Toluene			< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	2.8	< 1.0
1,1,1-Trichloroethane (TCA)			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	11	< 1.0	< 1.0	13	< 1.0
1,1,2-Trichloroethane			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethylene (TCE)			< 1.0	< 1.0	1.2	< 1.0	< 1.0	< 1.0	< 5.0	150	1.2	< 1.0	38	5.0
1,2,4-Trimethylbenzene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	1.1	< 1.0
Vinyl chloride			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10	19	< 2.0	< 2.0	< 2.0	< 2.0
m,p-Xylene			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10	< 2.0	< 2.0	< 2.0	37	< 2.0
o-Xylene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 2.0	< 1.0	19	< 2.0

- General Notes:**
- Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
 - ft bgs = feet below ground surface.
 - µg/l = micrograms per liter.
 - "<" = The analyte was not detected at a concentration above the specified reporting limit.

- Footnote:**
- (a) The groundwater sample from KE-117 on February 6, 2014 was collected during overpumping of the well to simulate construction dewatering conditions and was not collected via low flow sampling techniques.
- (b) WashSW was a grab sample collected from the base of an open excavation within Washington Street.

Table 4-3. Chemical Testing Results - GLX Groundwater Sampling
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Well Screen Interval (ft bgs): Sample Date: Collected By:			KE-202S KE-202S 5 to 20 4/8/14 Kleinfelder	KE-204 KE-204 15 to 25 4/14/14 Kleinfelder	KE-205 KE-205 9.5 to 19.5 4/15/14 Kleinfelder	KE-206 KE-206 10 to 21 4/14/14 Kleinfelder	KE-207 KE-207 8 to 18 4/15/14 Kleinfelder	KE-208 KE-208 4 to 14 4/14/14 Kleinfelder	KE209 KE209 9 to 19 4/15/14 Kleinfelder	KE-210 KE-210 8.5 to 18.5 4/15/14 Kleinfelder	GLC-WASH-MW-4 GLC-WASH-MW-4-082520 15-30 8/25/20 TRC	GLC-WASH-MW-2 GLC-WASH-MW-2-082520 15-30 8/25/20 TRC
Analyte	Method	Units										
Volatile Organic Compounds (VOCs)	SW-846 8260C	µg/l										
Acetone			< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	NT	NT
Benzene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	NT
Carbon disulfide			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	NT
1,1-Dichloroethane			< 1.0	3.4	< 1.0	6.0	< 1.0	< 1.0	< 1.0	1000	NT	NT
1,1-Dichloroethylene			< 1.0	2.6	< 1.0	4.6	< 1.0	< 1.0	< 1.0	790	NT	NT
cis-1,2-Dichloroethylene			< 0.40	83	< 1.0	89	< 1.0	1.2	< 1.0	8.4	<1.0	<1.0
Ethylbenzene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	NT
Methyl tert-butyl ether			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	71	NT	NT
Tetrachloroethylene (PCE)			< 1.0	14000	1.0	12000	2.5	73	< 1.0	14000	11	11
Tetrahydrofuran			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	NT
Toluene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	NT
1,1,1-Trichloroethane (TCA)			< 1.0	16	< 1.0	35.0	< 1.0	< 1.0	< 1.0	860	NT	NT
1,1,2-Trichloroethane			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.8	NT	NT
Trichloroethylene (TCE)			< 1.0	81.0	< 1.0	86.0	< 1.0	2.0	< 1.0	24000	1.6	<1.0
1,2,4-Trimethylbenzene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	NT
Vinyl chloride			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	3.6	<1.0	<1.0
m,p-Xylene			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	NT
o-Xylene			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	NT

- General Notes:**
- 1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
 - 2. ft bgs = feet below ground surface.
 - 3. µg/l = micrograms per liter.
 - 4. "<" = The analyte was not detected at a concentration above the specified reporting limit.

- Footnote:**
- (a) The groundwater sample from KE-117 on February 6, 2014 was collected during overpumping of the well to simulate construction dewatering conditions and was not collected via low flow sampling techniques.
 - (b) WashSW was a grab sample collected from the base of an open excavation within Washington Street.

Table 4-4 Chemical Testing Results - 31 Tufts Street Soil Vapor
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Collected By:				31 Tufts Street			
				31TUFT-SV1		31TUFT-SV2	
				10/17/2023	1/31/2024	10/27/2023	1/31/2024
				GEI	GEI	GEI	GEI
	Method	Units	Residential Sub-Slab Screening Values				
Volatile Organic Compounds (VOCs)	TO-15 SIM	µg/m³					
cis-1,2-Dichloroethene			56	<0.159	<0.079	<0.079	0.270
trans-1,2-Dichloroethene			56	<0.159	<0.079	0.119	<0.079
Tetrachloroethene			98	58.7	31.5	59.1	77.3
1,1,2,2-Tetrachloroethane			2.8	<0.275	<0.137	1.4	<0.137
1,1,1-Trichloroethane			210	2.87	0.786	8.95	9.82
Trichloroethene			28	1.38	<0.107	2.41	2.42

Table 4-5 Chemical Testing Results - 97 Franklin Street Soil Vapor
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

			97 Franklin Street							
			Sample Location:		Sample Name:		Sample Date:			
			Units:							
Analyte	Method	Residential Sub-Slab Screening Values (µg/m ³)	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs)	TO-15									
Carbon tetrachloride			0.82 J	0.13 J	< 0.53	< 0.20	NT	NT	NT	NT
Tetrachloroethylene (PCE)		98	34	5.0	86.8	12.8	1.31	0.193	6.16	0.909
1,1,1-Trichloroethane (TCA)		210	< 1.1	< 0.20	1.5	0.27	<0.109	<0.020	0.136	0.025
Trichloroethylene (TCE)		28	<1.1	<0.20	<1.1	<0.20	<0.107	<0.020	0.150	0.028

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 4-6 Chemical Testing Results - 103 Washington Street Soil Vapor
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

				103 Washington Street											
				103Wash-SV1						103Wash-SV2					
				5/10/2023		7/6/2023		3/5/2024		5/10/2023		7/6/2023		3/5/2024	
				µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv
Analyte	Method	Slab Soil Gas Screening Values (µg/m³)	Commercial Sub-Slab Soil Gas Screening Values (µg/m³)												
Volatile Organic Compounds (VOCs)															
1,1-Dichloroethylene	TO-15	56	12000	<0.079	<0.020	<0.079	<0.020	<0.079	<0.020	<0.079	<0.020	0.107	0.027	<0.079	<0.020
cis-1,2-Dichloroethylene		56	370	1.95	0.493	2.32	0.585	<0.079	<0.020	9.48	2.39	19.2	4.83	12.2	3.07
trans-1,2-Dichloroethylene		56	3700	1.17	0.295	2.39	0.603	<0.079	<0.020	6.66	1.68	7.41	1.87	2.24	0.565
Tetrachloroethylene (PCE)		98	290	28.5	4.21	51.5	7.60	0.210	0.031	189	27.9	188	27.7	40.9	6.0
1,1,1-Trichloroethane		210	310000	<0.109	<0.020	0.115	0.021	<0.109	<0.020	0.175	0.032	0.278	0.051	<0.109	<0.020
Trichloroethylene (TCE)		28	120	9.46	1.76	15.7	2.92	<0.107	<0.020	98.3	18.3	130	24.1	37.6	7.00

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. Residential Sub-Slab Soil Gas Screening Values taken from the Massachusetts Department of Environmental Protection (MassDEP) "Vapor Intrusion Guidance: Site Assessment, Mitigation and Closure" dated October 2016.
6. Commercial Sub-Slab Soil Gas Screening Values taken from the Massachusetts Department of Environmental Protection (MassDEP) "Vapor Intrusion Guidance: Site Assessment, Mitigation and Closure" dated October 2016.

**Table 4-7 Chemical Testing Results - 31 Tufts Street Soil Vapor
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts**

Sample Location: Sample Name: Sample Date: Collected By:				31 Tufts Street					
				31TUFT-IA1		31TUFT-IA2		31TUFTS-IA3	
				10/17/2023	1/31/2024	10/17/2023	1/31/2024	10/17/2023	1/31/2024
				GEI	GEI	GEI	GEI	GEI	GEI
Analyte	Method	Units	Residential Indoor Air Threshold Values						
Volatile Organic Compounds (VOCs)	TO-15	µg/m³							
trans-1,2-Dichloroethene			0.8	<0.079	0.103	<0.079	<0.079	<0.079	<0.079
Tetrachloroethene			1.4	<0.136	<0.136	0.203	<0.136	0.176	<0.136

General Notes

1. Analytes detected above the laboratory reporting limit are reported here. For a complete list of analytes see the laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. Residential Threshold Values are cited from "Vapor Intrusion Guidance WSC#16-435" from the Massachusetts Department of Environmental Protection dated October 2016.

Table 4-8 Chemical Testing Results -97 Franklin Street Soil Vapor
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units:			97 Franklin Street																									
			97FRAN-1 9/29/07		97FRAN-B 9/29/07		97FRAN-1 2/21/08		97FRAN-B 2/21/08		97FRAN-1 7/24/08		97FRAN-B 7/24/08		97FRAN-1 1/14/09		97FRAN-B 1/14/09		97FRAN-1 3/8/10		97FRAN-B 3/8/10		97FRAN-1 5/24/24		97FRAN-B 5/24/24		97FRAN-2 5/24/24	
			µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method	Indoor Air Threshold Values (µg/m ³)																										
Volatile Organic Compounds (VOCs)	TO-15																											
Carbon Tetrachloride		0.54	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.69 J	0.11 J	0.69 J	0.11 J	0.63 J	0.10 J	0.75 J	0.12 J	< 1.3	< 0.20	< 1.3	< 0.20	NT	NT	NT	NT	NT	NT
1,2-Dichloroethane		0.09	< 0.81	< 0.20	< 0.81	< 0.20	0.69 J	0.17 J	< 0.81	< 0.20	11	2.6	0.81	0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	NT	NT	NT	NT	NT	NT
Tetrachloroethylene (PCE)		1.4	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	1.0 J	0.15 J	< 1.4	< 0.20	1.3 J	0.19 J	< 1.4	< 0.20	0.81 J	0.12 J	1.0 J	0.15 J	1.6	0.23	0.522	0.077	1.72	0.254	<0.136	<0.020
1,1,1-Trichloroethane		3	<1.1	< 0.20	<1.1	< 0.20	<1.1	< 0.20	<1.1	< 0.20	<1.1	< 0.20	<1.1	< 0.20	<1.1	< 0.20	<1.1	< 0.20	<1.1	< 0.20	<1.1	< 0.20	<0.109	<0.020	0.125	0.023	<0.109	<0.020
Trichloroethylene (TCE)		0.4	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	1.0 J	0.15 J	< 1.4	< 0.20	1.3 J	0.19 J	< 1.4	< 0.20	0.81 J	0.12 J	1.0 J	0.15 J	1.6	0.23	0.167	0.031	0.489	0.091	0.150	<0.028

- General Notes:**
- Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 - µg/m³ = micrograms per cubic meter.
 - ppbv = parts per billion by volume.
 - "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 4-9 - Chemical Testing Results - Indoor Air
103 Washington Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units:				First Floor						Basement			
				103Wash-F1 5/10/23		103Wash-F1 7/6/23		103Wash-F1 3/5/24		103Wash-B1 7/6/23		103Wash-B1 3/5/24	
				µg/m3	ppbv	µg/m3	ppbv	µg/m3	ppbv	µg/m3	ppbv	µg/m3	ppbv
Analyte	Method	MassDEP Residential Indoor Air Threshold Values (µg/m ³)	MassDEP Commerical Indoor Air Threshold Values (µg/m ³)										
Volatile Organic Compounds (VOCs)		TO-15											
cis-1,2,-Dichloroethylene		0.8	5.3	<0.079	<0.020	0.107	0.027	<0.079	<0.020	0.599	0.151	<0.079	<0.020
trans-1,2-Dichloroethylene		0.8	53	0.194	0.049	0.852	0.215	<0.079	<0.020	6.50	1.64	<0.079	<0.020
Tetrachloroethylene (PCE)		1.4	4.1	0.278	0.041	0.692	0.102	<0.136	<0.020	2.28	0.336	0.325	0.048
Trichloroethylene (TCE)		0.4	1.8	<0.107	<0.020	0.204	0.038	<0.107	<0.020	0.919	0.171	<0.107	<0.020

Table 4-10. Summary of Meteorological Data During Air Sampling Events
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location	Sample Date	Sample Location	Outside Temperature (°F) ^{1,3}		Outside Barometric Pressure (in. Hg) ^{2,4}		Prevailing Wind Direction		General Weather Conditions		Significant precipitation within 12 hours prior to Sampling?
			Start	End	Start	End	Start	End	Start	End	
Residences											
31 Tufts Street	1/30/2024-1/31/2024	31Tufts-IA1	30	36	30.26	30.10	NE	WSW	Cloudy	Cloudy	No
		31Tufts-IA2									
		31Tufts-IA3									
	1/31/2024	31Tufts-SV1	36	30.10	WSW	Cloudy	No				
		31Tufts-SV2									
103 Washington Street	3/4/2024-3/5/2024	103Wash-F1	52	44	30.44	30.31	E	E	Partly Cloudy	Cloudy, light mist	No
		103Wash-B1									
	3/5/2024	103Wash-SV1	44	30.30	E	Cloudy, light mist					
		103Wash-SV2									
	97 Franklin Street	5/23/2024-5/24/2024	97Fran-B	80	75	29.82	29.81	SW	W	Cloudy	
97Fran-1											
97Fran-2											
5/24/2024		97Frank-SS1	80	82	29.75	W	Sunny	No			
		97Frank-SS2									

General Notes:

1. °F = degrees Fahrenheit.
2. in. Hg = inches of mercury.
3. Temperatures were measured in the field using a hand-held thermometer.
4. Barometric pressures were measured in the field with a digital barometer.
5. NM = Not Measured.
6. NA = Not Applicable.

Table 5-1. Summary of SSDS Monitoring Events - Capuano Center
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
 50 Tufts Street
 Somerville, Massachusetts

Monitoring Date	Monitoring Event per RMR Report Period	Type of Monitoring Event	SSDS Field Parameters Measured	Analytical Samples Collected (Yes/No)?
1/8/2024	1	SSDS Quarterly Monitoring	-Pressure readings, VOC concentrations, and flow rate at each manifold pipe. -Pressure readings, VOC concentrations, and flow rate at all the exterior extraction pipes.	No
4/25/2024	2	SSDS Quarterly Monitoring	-Pressure readings, VOC concentrations, and flow rate at each manifold pipe. -Pressure readings, VOC concentrations, and flow rate at all the exterior extraction pipes.	No

General Notes:

1. SSDS = Sub-Slab Depressurization System.
2. RMR = Remedial Monitoring Report.
3. VOC = Volatile Organic Compound.
4. VOC measurements collected with a ppm-RAE calibrated to 100 parts per million (ppm) isobutylene.
5. Pressure readings collected using a Dwyer 475-000-FM manometer.

Table 5-2. Chemical Testing Results - Capuano Center Indoor and Outdoor Air
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample ID:		Cafetorium		Room 101				Room 108				Room 121		Room 122						Room 125				Room 126					
		150 GLEN-CAF		150 GLEN-ROOM 101A		150 GLEN-ROOM 101B		150 GLEN-ROOM 108A		150 GLEN-ROOM 108B		150 GLEN-ROOM 121		150 GLEN-ROOM 122		150 GLEN-RM 122		150 GLEN-RM 122		150 GLEN-ROOM 125A		150 GLEN-ROOM 125B		150 GLEN-ROOM 126		150 GLEN-ROOM 100 (FD-Room 126)		150 GLEN-RM 126	
		1/6/07		12/27/06		12/28/06		12/27/06		12/28/06		1/6/07		1/6/07		2/7/07		5/23/15		12/27/06		12/28/06		1/13/07		1/13/07		2/7/07	
Sample Date: Units:		µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv
Analyte	Method																												
Volatile Organic Compounds (VOCs)		TO-15																											
Carbon tetrachloride		0.49 J J+ < 0.81	0.078 J J+ < 0.20	< 1.3 < 0.81	< 0.20 < 0.20	< 1.3 < 0.81	< 0.20 < 0.20	0.94 J < 0.81	0.15 J < 0.20	< 1.3 < 0.81	< 0.20 < 0.20	0.52 J J+ < 0.81	0.082 J J+ < 0.20	0.51 J < 0.81	0.081 J J+ < 0.20	0.69 J < 0.81	0.11 J < 0.20	NT < 0.81	NT < 0.20	1.0 J < 0.81	0.16 J < 0.20	< 1.3 < 0.81	< 0.20 < 0.20	0.69 J < 0.81	0.11 J < 0.20	0.63 J < 0.81	0.10 J < 0.20	0.94 J < 0.81	0.15 J < 0.20
Dichloroethane, 1,1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	NT	NT	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethane, 1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethene, 1,1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethylene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethane, 1,1,2,2-		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Tetrachloroethylene (PCE)		0.88 J J+ < 1.1	0.13 J J+ < 0.20	< 1.4 < 1.1	< 0.20 < 0.20	< 1.4 < 1.1	< 0.20 < 0.20	< 1.4 < 1.1	< 0.20 < 0.20	< 1.4 < 1.1	< 0.20 < 0.20	< 1.4 < 1.1	< 0.20 < 0.20	< 1.4 < 1.1	< 0.20 < 0.20	< 1.4 < 1.1	< 0.20 < 0.20	< 1.4 < 1.1	< 0.20 < 0.20	< 1.4 < 1.1	< 0.20 < 0.20	< 1.4 < 1.1	< 0.20 < 0.20	0.88 J < 1.1	0.13 J < 0.20	0.75 J < 1.1	0.11 J < 0.20	< 1.4 < 1.1	< 0.20 < 0.20
Trichloroethane, 1,1,1,- (TCA)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethylene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 5. FD = Field Duplicate.
 6. The samples collected in August 2009, November 2009, February 2010, November 2010, March 2011, and May 2015 were collected over a 24 hour period.
 - 7 NT = Not Tested.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.

Table 5-2. Chemical Testing Results - Capuano Center Indoor and Outdoor Air
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample ID:		Room 126 (continued)																											
		150GLEN-ROOM 126		150 GLEN-ROOM 126		150 GLEN-RM 126		150GLEN-RM126		150GLEN-RM126		150GLEN-RM126		150GLEN-RM126		150GLEN-RM126		150GLEN-RM126		150GLEN-RM126		150GLEN-RM126		150GLEN-RM126		150GLEN-RM126		150GLEN-RM126	
Sample Date:		3/8/07		4/20/07		5/17/07		7/30/07		9/10/07		10/8/07		10/14/07		11/15/07		12/13/07		1/21/08		2/19/08		2/22/08		3/172008		4/21/08	
Units:		µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv
Analyte	Method																												
Volatile Organic Compounds (VOCs)		TO-15																											
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.60 J	0.095 J	0.69 J	0.11 J	0.82 J	0.13 J	< 1.3	< 0.20	0.69 J	0.11 J	0.59 J	0.093 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.69 J	0.11 J
Dichloroethane, 1,1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethane, 1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, 1,1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethylene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethane, 1,1,2,2-		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Tetrachloroethylene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	1.0 J	0.15 J	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethane, 1,1,1- (TCA)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethylene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 5. FD = Field Duplicate.
 6. The samples collected in August 2009, November 2009, February 2010, November 2010, March 2011, and May 2015 were collected over a 24 hour period.
 - 7 NT = Not Tested.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.

Table 5-2. Chemical Testing Results - Capuano Center Indoor and Outdoor Air
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample ID:		Room 126 (continued)																		Room 134						Room 136		Room 137			
		150GLEN-RM126		150GLEN-RM126		150GLEN-RM126		150GLEN-RM126		150GLEN-RM126		150GLEN-RM126		150GLEN-RM126		150GLEN-RM126		150GLEN-RM126		150 GLEN-ROOM 134		150 GLEN-RM 134		150 GLEN-RM 134		150 GLEN-ROOM 136		150 GLEN-ROOM 137A		150 GLEN-ROOM 137B	
		8/18/08		11/24/08		3/2/09		8/27/09		11/11/09		2/19/10		11/11/10		3/17/11		5/23/15		1/13/07		2/7/07		5/23/15		1/13/07		1/6/07		1/6/07	
Analyte	Method	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv
Volatile Organic Compounds (VOCs)		TO-15																													
Carbon tetrachloride		0.60 J	0.096 J	0.60 J	0.096 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	NT	NT	NT	NT	NT	NT	0.75 J	0.12 J	0.94 J	0.15 J	NT	NT	0.69 J	0.11 J	0.52 J J+	0.082 J J+	< 1.3	< 0.20
Dichloroethane, 1,1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.53	< 0.13	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethane, 1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	NT	NT	NT	NT	NT	NT	< 0.81	< 0.20	< 0.81	< 0.20	NT	NT	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, 1,1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.52	< 0.13	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethylene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.37	< 0.094	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethane, 1,1,2,2-		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	1.2 J	0.18 J	< 1.4	< 0.20	< 1.4	< 0.20	< 0.82	< 0.12	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Tetrachloroethylene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 0.95	< 0.14	< 1.4	< 0.20	3.2	0.47	< 1.4	< 0.20	< 1.4	< 0.20	2.1	0.31	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethane, 1,1,1,- (TCA)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 0.76	< 0.14	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethylene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 0.70	< 0.13	< 1.1	< 0.20	0.54 J	0.10 J	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
- Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 - µg/m³ = micrograms per cubic meter.
 - ppbv = parts per billion by volume.
 - "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 - FD = Field Duplicate.
 - The samples collected in August 2009, November 2009, February 2010, November 2010, March 2011, and May 2015 were collected over a 24 hour period.
 - NT = Not Tested.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.

Table 5-2. Chemical Testing Results - Capuano Center Indoor and Outdoor Air
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample ID:		Room 138																											
		RM138		150 GLEN-ROOM 138		150 GLEN-ROOM 138		150 GLEN-ROOM 138		150 GLEN-ROOM 138 (Alpha duplicate)		150 GLEN-RM 138		150 GLEN-RM 139 (FD-Room 138)		150GLEN-ROOM 138		150GLEN-ROOM 139 (FD-Room 138)		150 GLEN-ROOM 138		150GLEN-ROOM 139 (FD-Room 138)		150 GLEN-RM 138		150GLEN-ROOM 139 (FD-Room 138)		150GLEN-RM138	
Sample Date:		1/2/07		1/6/07		1/13/07		1/26/07		1/26/07		2/7/07		2/7/07		3/8/07		3/8/07		4/20/07		4/20/07		5/17/07		5/17/07		7/30/07	
Units:		µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv
Analyte	Method																												
Volatile Organic Compounds (VOCs)		TO-15																											
Carbon tetrachloride		< 1.3	< 0.20	0.49 J J+	0.078 J J+	0.82 J	0.13 J	0.82 J	0.13 J	< 0.126	< 0.020	0.75 J	0.12 J	0.52 J	0.082 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.61 J	0.097 J
Dichloroethane, 1,1-		0.45 J	0.11 J	0.77 J J+	0.19 J J+	0.57 J	0.14 J	0.65 J	0.16 J	< 0.081	< 0.020	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethane, 1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.079	< 0.020	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, 1,1-		< 0.79	< 0.20	2.1 J+	0.54 J+	< 0.79	< 0.20	< 0.79	< 0.20	< 0.079	< 0.020	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethylene, cis-1,2-		< 0.79	< 0.20	0.83 J+	0.21 J+	< 0.79	< 0.20	< 0.79	< 0.20	< 0.0819	< 0.020	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethane, 1,1,2,2-		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4 J+	< 0.20 J+
Tetrachloroethylene (PCE)		14	2.0	60 J+	8.8 J+	20	3.0	20	3.0	32.6	4.8	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	1.2 J	0.17 J
Trichloroethane, 1,1,1- (TCA)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 0.109	< 0.020	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethylene (TCE)		2.3	0.42	7 J+	1.3 J+	3.1	0.57	3.3	0.61	4.26	0.794	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 5. FD = Field Duplicate.
 6. The samples collected in August 2009, November 2009, February 2010, November 2010, March 2011, and May 2015 were collected over a 24 hour period.
 - 7 NT = Not Tested.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.

Table 5-2. Chemical Testing Results - Capuano Center Indoor and Outdoor Air
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample ID: Sample Date: Units:		Room 138 (continued)																													
		150GLEN-ROOM 139 (FD-Room 138)		150GLEN-RM138		150GLEN-ROOM 139 (FD-Room 138)		150GLEN-RM138		150GLEN-RM139 (FD-Room 138)		150GLEN-RM239 (FD-Room 138)		150GLEN-RM238 (FD-Room 138)		150GLEN-ROOM 139 (FD-Room 138)		150GLEN-RM238 (FD-Room 138)		150GLEN-RM239 (FD-Room 138)		150GLEN-RM138		150GLEN-RM139 (FD-Room 138)		150GLEN-RM138					
		7/30/07		9/10/07		9/10/07		10/8/07		10/8/07		10/8/07		10/8/07		10/14/07		10/14/07		10/14/07		10/14/07		11/15/07		11/15/07		12/13/07			
Analyte	Method	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv		
Volatile Organic Compounds (VOCs)																															
Carbon tetrachloride	TO-15	0.69 J	0.11 J	0.69 J	0.11 J	0.69 J	0.11 J	0.69 J	0.11 J	0.88 J	0.14 J	0.82 J	0.13 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.59 J	0.094 J	0.62 J	0.099 J	0.69 J	0.11 J	0.69 J	0.11 J	0.57 J	0.091 J		
Dichloroethane, 1,1-		< 0.81 J+	< 0.20 J+	< 0.81 J+	< 0.20 J+	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20		
Dichloroethane, 1,2-		< 0.81 J+	< 0.20 J+	< 0.81 J+	< 0.20 J+	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20		
Dichloroethene, 1,1-		< 0.79 J+	< 0.20 J+	< 0.79 J+	< 0.20 J+	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20		
Dichloroethylene, cis-1,2-		< 0.79 J+	< 0.20 J+	< 0.79 J+	< 0.20 J+	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20		
Tetrachloroethane, 1,1,2,2-		< 1.4 J+	< 0.20 J+	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Tetrachloroethylene (PCE)		1.1 J	0.16 J	< 1.4 J+	< 0.20 J+	6.5	0.96	< 1.4	< 0.20	1.5	0.22	1.2 J	0.18 J	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethane, 1,1,1- (TCA)		< 1.1 J+	< 0.20 J+	< 1.1 J+	< 0.20 J+	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethylene (TCE)		< 1.1 J+	< 0.20 J+	< 1.1 J+	< 0.20 J+	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 5. FD = Field Duplicate.
 6. The samples collected in August 2009, November 2009, February 2010, November 2010, March 2011, and May 2015 were collected over a 24 hour period.
 - 7 NT = Not Tested.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.

Table 5-2. Chemical Testing Results - Capuano Center Indoor and Outdoor Air
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample ID:		Room 138 (continued)																											
		150GLEN-RM139 (FD-Room 138)		150GLEN-RM138		150GLEN-RM139 (FD-Room 138)		150GLEN-RM138		150GLEN-RM139 (FD-Room 138)		150GLEN-RM138		150GLEN-RM139 (FD-Room 138)		150GLEN-RM138		150GLEN-RM139 (FD-Room 138)		150GLEN-RM138		150GLEN-RM139 (FD-Room 138)		150GLEN-RM138		150GLEN-RM139 (FD-Room 138)		150GLEN-RM138	
		12/13/07		1/21/08		1/21/08		2/19/08		2/19/08		2/22/08		2/22/08		3/17/08		3/17/08		4/21/08		4/21/08		8/18/08		8/18/08		11/24/08	
Analyte	Method	Units:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs)	TO-15	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.69 J	0.11 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.75 J	0.12 J	0.69 J	0.11 J	0.69 J	0.11 J	0.63 J	0.10 J	0.62 J	0.098 J
Carbon tetrachloride		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethane, 1,1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethane, 1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethene, 1,1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethylene, cis-1,2-		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Tetrachloroethane, 1,1,2,2-		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Tetrachloroethylene (PCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethane, 1,1,1,- (TCA)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethylene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
- Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 - µg/m³ = micrograms per cubic meter.
 - ppbv = parts per billion by volume.
 - "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 - FD = Field Duplicate.
 - The samples collected in August 2009, November 2009, February 2010, November 2010, March 2011, and May 2015 were collected over a 24 hour period.
 - NT = Not Tested.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.

Table 5-2. Chemical Testing Results - Capuano Center Indoor and Outdoor Air
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample ID:		Room 138 (continued)																											
		150GLEN-RM139 (FD-Room 138)		150GLEN-RM138		150GLEN-RM139 (FD-Room 138)		150GLEN-RM138		150GLEN-RM139 (FD-Room 138)		150GLEN-RM138		150GLEN-RM139 (FD-Room 138)		150GLEN-RM138		150GLEN-RM139 (FD-Room 138)		150GLEN-RM138		150GLEN-RM139 (FD-Room 138)		150GLEN-RM138		150GLEN-RM139 (FD- Room 138)		150GLEN-RM138	
Sample Date: Units:		11/24/08		3/2/09		3/2/09		8/27/09		8/27/09		11/11/09		11/11/09		2/19/10		2/19/10		11/11/10		11/11/10		3/17/11		3/17/11		5/23/15	
		µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv
Analyte	Method																												
Volatile Organic Compounds (VOCs)	TO-15																												
Carbon tetrachloride		0.63 J	0.10 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dichloroethane, 1,1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.53	< 0.13	< 0.53	< 0.13	< 0.81	< 0.20
Dichloroethane, 1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dichloroethene, 1,1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.52	< 0.13	< 0.52	< 0.13	< 0.79	< 0.20
Dichloroethylene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.37	< 0.094	< 0.37	< 0.094	< 0.79	< 0.20
Tetrachloroethane, 1,1,2,2-		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 0.82	< 0.12	< 0.82	< 0.12	< 1.4	< 0.20
Tetrachloroethylene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 0.95	< 0.14	< 0.95	< 0.14	< 1.4	< 0.20
Trichloroethane, 1,1,1- (TCA)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 0.76	< 0.14	< 0.76	< 0.14	< 1.1	< 0.20
Trichloroethylene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 0.70	< 0.13	< 0.70	< 0.13	< 1.1	< 0.20

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 5. FD = Field Duplicate.
 6. The samples collected in August 2009, November 2009, February 2010, November 2010, March 2011, and May 2015 were collected over a 24 hour period.
 - 7 NT = Not Tested.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.

Table 5-2. Chemical Testing Results - Capuano Center Indoor and Outdoor Air
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location:		Room 141																											
Sample ID:		150 GLEN-ROOM 141		150GLEN-ROOM 141		150 GLEN-ROOM 141		150 GLEN-RM 141		150GLEN-RM141		150GLEN-RM141		150GLEN-RM141		150GLEN-RM141		150GLEN-RM141		150GLEN-RM141		150GLEN-RM141		150GLEN-RM141		150GLEN-RM141		150GLEN-RM141	
Sample Date:		1/6/07		3/8/07		4/20/07		5/17/07		7/30/07		9/10/07		10/8/07		10/14/07		11/15/07		12/13/07		1/21/08		2/19/08		2/22/08		3/17/08	
Units:																													
Analyte	Method	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv
Volatile Organic Compounds (VOCs)																													
Carbon tetrachloride		0.45 J J+	0.071 J J+	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3 J+	< 0.20 J+	0.75 J	0.12 J	< 1.3	< 0.20	< 1.3	< 0.20	0.69 J	0.11 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.69 J	0.11 J	< 1.3	< 0.20
Dichloroethane, 1,1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81 J+	< 0.20 J+	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethane, 1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81 J+	< 0.20 J+	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, 1,1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79 J+	< 0.20 J+	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethylene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79 J+	< 0.20 J+	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethane, 1,1,2,2-		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4 J+	< 0.20 J+	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Tetrachloroethylene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4 J+	< 0.20 J+	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethane, 1,1,1,- (TCA)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1 J+	< 0.20 J+	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethylene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1 J+	< 0.20 J+	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 5. FD = Field Duplicate.
 6. The samples collected in August 2009, November 2009, February 2010, November 2010, March 2011, and May 2015 were collected over a 24 hour period.
 - 7 NT = Not Tested.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.

Table 5-2. Chemical Testing Results - Capuano Center Indoor and Outdoor Air
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample ID:		Room 141 (continued)																Room 142															
		150GLEN-RM141		150GLEN-RM141		150GLEN-RM141		150GLEN-RM141		150GLEN-RM141		150GLEN-RM141		150GLEN-RM141		RM142		150 GLEN-ROOM 142		150 GLEN-RM 142		150GLEN-ROOM 142		150 GLEN-ROOM 142		150 GLEN-RM 142		150GLEN-RM142					
		4/21/08		8/18/08		11/24/08		3/2/09		8/27/09		2/19/10		11/11/10		3/17/11		1/2/07		1/6/07		2/7/07		3/8/07		4/20/07		5/17/07		7/30/07			
Sample Date:		Units:		µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv		
Analyte	Method																																
Volatile Organic Compounds (VOCs)		TO-15																															
Carbon tetrachloride		0.69 J	0.11 J	0.60 J	0.096 J	0.63 J	0.10 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	NT	NT	NT	NT	< 1.3	< 0.20	0.52 J J+	0.083 J J+	0.82 J	0.13 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.63 J	0.10 J
Dichloroethane, 1,1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.53	< 0.13	1.4	0.35	1.2 J+	0.29 J+	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethane, 1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	NT	NT	NT	NT	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	1.0	0.25
Dichloroethene, 1,1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.52	< 0.13	0.87	0.22	2.5 J+	0.63 J+	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethylene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.37	< 0.094	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethane, 1,1,2,2-		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 0.82	< 0.12	< 1.4	< 0.20	< 1.4 J+	< 0.20 J+	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Tetrachloroethylene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 0.95	< 0.14	28	4.1	45 J+	6.6 J+	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethane, 1,1,1,- (TCA)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 0.76	< 0.14	< 1.1	< 0.20	0.33 J J+	0.061 J J+	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethylene (TCE)		< 1.1	< 0.20	0.62 J	0.092 J	0.62 J	0.092 J	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 0.70	< 0.13	3.7	0.69	5.4 J+	1 J+	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 5. FD = Field Duplicate.
 6. The samples collected in August 2009, November 2009, February 2010, November 2010, March 2011, and May 2015 were collected over a 24 hour period.
 - 7 NT = Not Tested.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.

Table 5-2. Chemical Testing Results - Capuano Center Indoor and Outdoor Air
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample ID:		Room 142 (cont)																													
		150GLEN-RM142		150GLEN-RM142		150GLEN-RM142		150GLEN-RM142		150GLEN-RM142		150GLEN-RM142		150GLEN-RM142		150GLEN-RM142		150GLEN-RM142		150GLEN-RM142		150GLEN-RM142		150GLEN-RM142		150GLEN-RM142		150GLEN-RM142			
Sample Date:		9/10/07		10/8/07		10/14/07		11/15/07		12/13/07		1/21/08		2/19/08		2/22/08		3/17/08		4/21/08		8/18/08		11/24/08		3/2/09		8/27/09		11/11/09	
Units:		µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv
Analyte	Method																														
Volatile Organic Compounds (VOCs)																															
Carbon tetrachloride	TO-15	0.75 J	0.12 J	< 1.3	< 0.20	< 1.3	< 0.20	0.69 J	0.11 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.75 J	0.12 J	< 1.3	< 0.20	0.69 J	0.11 J	< 1.3	< 0.20	0.69 J	0.11 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20
Dichloroethane, 1,1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethane, 1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, 1,1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethylene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethane, 1,1,2,2-		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Tetrachloroethylene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethane, 1,1,1- (TCA)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethylene (TCE)	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 5. FD = Field Duplicate.
 6. The samples collected in August 2009, November 2009, February 2010, November 2010, March 2011, and May 2015 were collected over a 24 hour period.
 - 7 NT = Not Tested.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.

Table 5-2. Chemical Testing Results - Capuano Center Indoor and Outdoor Air
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample ID:		Room 142 (continued)								Room 144				Room 145		Room 146															
		150GLEN-RM142		150GLEN-RM142		150GLEN-RM142		150GLEN-RM142		150 GLEN-ROOM 144		150 GLEN-ROOM 144 (Alpha duplicate)		150 GLEN-ROOM 145		150 GLEN-ROOM 146A		150 GLEN-ROOM 146B		150 GLEN-ROOM 146B (FD-ROOM 146)		RM146		150 GLEN-ROOM 146		150 GLEN-RM 146		150GLEN-ROOM 146		150 GLEN-ROOM 146	
		2/19/10		11/11/10		3/17/11		5/23/15		1/13/07		1/13/07		1/6/07		12/27/06		12/28/06		12/28/06		1/2/07		1/6/07		2/7/07		3/8/07		4/20/07	
Sample Date: Units:		µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv
Analyte	Method																														
Volatile Organic Compounds (VOCs)		TO-15																													
Carbon tetrachloride		< 1.3	< 0.20	NT	NT	NT	NT	NT	NT	0.88 J	0.14 J	< 3.14	< 0.50	0.45 J J+	0.071 J J+	1.1 J	0.18 J	< 1.3	< 0.20	0.49 J	0.078 J	0.63 J	0.10 J	< 1.3	< 0.20	0.75 J	0.12 J	< 1.3	< 0.20	< 1.3	< 0.20
Dichloroethane, 1,1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.53	< 0.13	< 0.81	< 0.20	< 0.81	< 0.20	< 2.02	< 0.50	< 0.81	< 0.20	10	2.5	3.6	0.88	3.3	0.82	0.53 J	0.13 J	0.57 J J+	0.14 J J+	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethane, 1,2-		< 0.81	< 0.20	NT	NT	NT	NT	NT	NT	< 0.81	< 0.20	< 1.98	< 0.50	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, 1,1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.52	< 0.13	< 0.79	< 0.20	< 0.79	< 0.20	< 1.98	< 0.50	< 0.79	< 0.20	7.9	2.0	4.0	1.0	3.9	0.99	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethylene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.37	< 0.094	< 0.79	< 0.20	< 0.79	< 0.20	< 2.02	< 0.50	< 0.79	< 0.20	3.3	0.83	1.3	0.33	1.2	0.31	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 2.0	< 0.50
Tetrachloroethane, 1,1,2,2-		< 1.4	< 0.20	< 1.4	< 0.20	< 0.82	< 0.12	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Tetrachloroethylene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	< 0.95	< 0.14	< 1.4	< 0.20	4.1	0.61	4.36	0.643	< 1.4	< 0.20	186	27.5	83.4	12.3	85.4	12.6	11	1.6	26 J+	3.8 J+	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethane, 1,1,1- (TCA)		< 1.1	< 0.20	< 1.1	< 0.20	< 0.76	< 0.14	< 1.1	< 0.20	< 1.1	< 0.20	< 2.72	< 0.50	< 1.1	< 0.20	2.1	0.38	0.82 J	0.15 J	0.71 J	0.13 J	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethylene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 0.70	< 0.13	< 1.1	< 0.20	1.3	0.24	< 2.68	< 0.50	< 1.1	< 0.20	37	6.8	10	1.9	11	2.1	1.7	0.32	3.0 J+	0.56 J+	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 5. FD = Field Duplicate.
 6. The samples collected in August 2009, November 2009, February 2010, November 2010, March 2011, and May 2015 were collected over a 24 hour period.
 - 7 NT = Not Tested.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.

Table 5-2. Chemical Testing Results - Capuano Center Indoor and Outdoor Air
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample ID:		Room 146 (continued)																											
		150 GLEN-RM 146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146	
Sample Date:		5/17/07		7/30/07		9/10/07		10/8/07		10/14/07		11/15/07		12/13/07		1/21/08		2/19/08		2/22/08		3/17/08		4/21/08		8/18/08		11/24/08	
Units:		µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv
Analyte	Method																												
Volatile Organic Compounds (VOCs)																													
Carbon tetrachloride	TO-15	< 1.3	< 0.20	0.62 J	0.099 J	0.82 J	0.13 J	< 1.3	< 0.20	0.58 J	0.092 J	0.69 J	0.11 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.62 J	0.098 J	< 1.3	< 0.20	0.75 J	0.12 J	0.60 J	0.096 J	0.63 J	0.10 J
Dichloroethane, 1,1-		< 0.81	< 0.20	< 0.81 J+	< 0.20 J+	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethane, 1,2-		< 0.81	< 0.20	< 0.81 J+	< 0.20 J+	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	0.49 J	0.12 J	< 0.81	< 0.20
Dichloroethene, 1,1-		< 0.79	< 0.20	< 0.79 J+	< 0.20 J+	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethylene, cis-1,2-		< 0.79	< 0.20	< 0.79 J+	< 0.20 J+	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethane, 1,1,2,2-		< 1.4	< 0.20	< 1.4 +	< 0.20 J+	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Tetrachloroethylene (PCE)		< 1.4	< 0.20	1.0 J	0.15 J	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethane, 1,1,1- (TCA)		< 1.1	< 0.20	< 1.1 J+	< 0.20 J+	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethylene (TCE)		< 1.1	< 0.20	< 1.1 J+	< 0.20 J+	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 5. FD = Field Duplicate.
 6. The samples collected in August 2009, November 2009, February 2010, November 2010, March 2011, and May 2015 were collected over a 24 hour period.
 - 7 NT = Not Tested.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.

Table 5-2. Chemical Testing Results - Capuano Center Indoor and Outdoor Air
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location:		Room 146 (continued)														Outside of School by Room 126 Window						Outside of School by Day Care Window					
Sample ID:		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150GLEN-RM146		150 GLEN-0-1A		150 GLEN-0-1B		150 GLEN-0-1A		150 GLEN-0-2A		150 GLEN-0-2B		150 GLEN-0-2A	
Sample Date:		3/2/09		8/27/09		11/11/09		2/19/10		11/11/10		3/17/11		5/23/15		12/27/06		12/28/06		1/6/07		12/27/06		12/28/06		1/6/07	
Units:																											
Analyte	Method	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv
Volatile Organic Compounds (VOCs)	TO-15																										
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	NT	NT	NT	NT	NT	NT	< 1.3	< 0.20	< 1.3	< 0.20	0.52 J J+	0.083 J J+	1.1 J	0.17 J	< 1.3	< 0.20	0.52 J J+	0.082 J J+
Dichloroethane, 1,1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.53	< 0.13	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethane, 1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	NT	NT	NT	NT	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, 1,1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.52	< 0.13	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethylene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.37	< 0.094	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethane, 1,1,2,2-		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 0.82	< 0.12	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Tetrachloroethylene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 0.95	< 0.14	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethane, 1,1,1- (TCA)		< 1.1	< 0.20	0.93 J	0.17 J	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 0.76	< 0.14	< 1.1	< 0.20	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21
Trichloroethylene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 0.70	< 0.13	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 5. FD = Field Duplicate.
 6. The samples collected in August 2009, November 2009, February 2010, November 2010, March 2011, and May 2015 were collected over a 24 hour period.
 - 7 NT = Not Tested.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.

Table 5-2. Chemical Testing Results - Capuano Center Indoor and Outdoor Air
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample ID: Sample Date: Units:		Downwind on Roof																							
		150 GLEN-ROOF B		150 GLEN-ROOF B		150GLEN-ROOF		150 GLEN-ROOF		150 GLEN-ROOF		150GLEN-ROOF		150GLEN-ROOF		150GLEN-ROOF		150GLEN-ROOF		150GLEN-ROOF		150GLEN-ROOF		150GLEN-ROOF	
		2/8/07		2/8/07		3/8/07		4/20/07		5/17/07		8/9/07		9/10/07		10/14/07		11/14/07		12/17/07		1/21/08		2/19/08	
Analyte	Method	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs)	TO-15																								
Carbon tetrachloride		< 1.3	< 1.3	< 0.20	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.69 J	0.11 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20
Dichloroethane, 1,1-		< 0.81	< 0.81	< 0.20	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethane, 1,2-		< 0.81	< 0.81	< 0.20	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, 1,1-		< 0.79	< 0.79	< 0.20	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethylene, cis-1,2-		< 0.79	< 0.79	< 0.20	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethane, 1,1,2,2-		< 1.4	< 1.4	< 0.20	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Tetrachloroethylene (PCE)		< 1.4	< 1.4	< 0.20	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	1.2 J	0.18 J	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethane, 1,1,1,- (TCA)		< 1.2	< 1.2	< 0.21	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21
Trichloroethylene (TCE)		< 1.1	< 1.1	< 0.20	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 5. FD = Field Duplicate.
 6. The samples collected in August 2009, November 2009, February 2010, November 2010, March 2011, and May 2015 were collected over a 24 hour period.
 - 7 NT = Not Tested.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.

Table 5-2. Chemical Testing Results - Capuano Center Indoor and Outdoor Air
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample ID: Sample Date: Units:		Downwind on Roof (cont)											
		150GLEN-ROOF		150GLEN-ROOF		150GLEN-ROOF		150GLEN-ROOF		150GLEN-ROOF		150GLEN-ROOF	
		3/17/08		4/21/08		8/18/08		11/24/08		8/27/09		11/11/09	
Analyte	Method	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs)	TO-15												
Carbon tetrachloride		< 1.3	< 0.20	0.69 J	0.11 J	0.63 J	0.10 J	0.63 J	0.10 J	< 1.3	< 0.20	< 1.3	< 0.20
Dichloroethane, 1,1-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethane, 1,2-		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Dichloroethene, 1,1-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Dichloroethylene, cis-1,2-		< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20	< 0.79	< 0.20
Tetrachloroethane, 1,1,2,2-		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Tetrachloroethylene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethane, 1,1,1- (TCA)		< 1.2	< 0.21	< 1.2	< 0.21	< 1.2	< 0.21	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
Trichloroethylene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 5. FD = Field Duplicate.
 6. The samples collected in August 2009, November 2009, February 2010, November 2010, March 2011, and May 2015 were collected over a 24 hour period.
 7. NT = Not Tested.

- Qualifying Notes:**
- J The reported result is below the laboratory reporting limit and is estimated.
- J+ The reported result is estimated.

Table 6-1. Exposure Pathway Mitigation Measure (EPMM) Status
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Property Address	EPMM Design Option	Date Completed or Last Modified	Date of Last Indoor Air Monitoring	Construction Details													
				Ventilation Fan(s) (Model No.) ^(a)	Fan Replacement Date	Number of Sub-Slab Vapor Extraction Points (SSDS)	Sub-slab Vapor Barrier - HDPE Liner	Sub-Slab Ventilation System - Geocomposite	Sub-Slab Vapor Trench	Foundation Wall Ventilation System - Geocomposite	New Basement Slab Installed	Crawspace Vapor Barrier	Epoxy Vapor Barrier - Floor	Epoxy Vapor Barrier - Foundation Walls	Telemetry Installed (if necessary)	Reason Telemetry not installed (if applicable)	AUL Recorded (Yes/No)
91-93 Franklin Street	3	March, 2009	3/1/2012	-	-	-	Yes	Yes	-	-	Yes	-	Yes	Yes	-	-	Yes
95 Franklin Street	2/1 ^(b)	May, 2011	5/16/2013	GP-501	-	2	-	-	Yes	-	-	Yes	Yes	Yes	Yes	-	No
95R Franklin Street	2	December, 2007	3/8/2010	-	-	-	-	-	Yes	Yes	-	Yes	Yes	Yes	-	-	Yes
150 Glen Street (Capuano Center)	1	April, 2015	5/23/2015	GP-501 (3)	August, 2023	18	-	-	-	-	-	-	-	-	Yes	-	No
163 Glen Street	2 ^(c)	July, 2018	8/18/2020	-	-	-	Yes	-	Yes	-	Yes	-	-	-	-	-	No
166-168 Glen Street	3	November, 2010	3/1/2012	-	-	-	Yes	Yes	-	-	Yes	Yes	Yes	Yes	-	-	Yes
9 Knowlton Street	1	January, 2010	3/23/2023	GP-501	April, 2024	5	-	-	-	-	-	-	-	-	No	Refused access	Yes
13 Knowlton Street	1	January, 2010	1/10/2023	GP-501	March, 2018	4	-	-	-	-	-	-	-	-	Yes	-	Yes
17 Knowlton Street	3	March, 2009	3/7/2012	-	-	-	Yes	Yes	-	-	Yes	-	Yes	Yes	-	-	Yes
31-33 Knowlton Street	1	February, 2008	3/19/2010	GP-501	May, 2024	7	-	-	-	-	-	-	-	-	Yes	-	No
32 Knowlton Street	3	May, 2009	3/8/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes
34 Knowlton Street	4	June, 2014	4/27/2015	-	-	-	Yes	-	-	-	Yes	-	-	-	-	-	Yes
35-37 Knowlton Street	3/1 ^(b)	April, 2010	3/11/2011	GP-501	December, 2019	4	Yes	Yes	-	-	Yes	-	Yes	Yes	Yes	-	No
4 Morton Street	3	November, 2008	3/20/2012	-	-	-	Yes	Yes	-	-	Yes	-	Yes	Yes	-	-	No
10 Morton Street	3	March, 2009	3/5/2011	-	-	-	Yes	Yes	-	-	Yes	-	Yes	Yes	-	-	Yes
11 Morton Street	2	November, 2008	5/26/2021	-	-	-	-	-	Yes	Yes	-	-	Yes	Yes	-	-	Yes
12 Morton Street	3	March, 2008	11/19/2010	-	-	-	Yes	Yes	-	-	Yes	-	Yes	Yes	-	-	Yes
13 Morton Street	1	October, 2008	9/17/2014	GP-501	November, 2023	5	-	-	-	-	-	-	-	-	Yes	-	No
18 Morton Street	1	July, 2007	2/24/2011	GP-501	June, 2023	5	-	-	-	-	-	-	-	-	Yes	-	No
19-19A Morton Street	3	August, 2009	3/1/2012	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes
23 Tufts Street	1	May, 2007	2/25/2010	GP-501	-	1	-	-	-	-	-	-	-	-	Yes	-	No
27 Tufts Street	3/1 ^(b)	May, 2011	5/23/2013	GP-501	-	3	Yes	Yes	-	-	Yes	Yes	Yes	Yes	Yes	-	No
31 Tufts Street	4	October, 2022	1/30/2024	-	-	-	Yes	Yes	-	-	Yes	-	-	-	-	-	No
50 Tufts Street	1	August, 2007	3/11/2015	Regenerative Blower	-	22	-	-	-	-	-	-	Yes	-	Yes	-	No
60 Tufts Street	1	April, 2009	4/25/2019	Regenerative Blower	-	14	-	-	-	-	-	-	-	-	Yes	-	No
103 Waslington Street	(d)			-	-	-	-	-	-	-	-	-	-	-	-	-	
121 Washington	4	TBD		-	-	-	Yes	Yes	-	-	Yes	-	-	-	-	-	No

General Notes:

1. NS = Not sampled.
2. - = Not Applicable.

Footnotes:

- (a) Ventilation fans manufactured by Radon Away.
- (b) An Option 2 or 3 EPMM was initially installed at these properties; however, a fan was added to the EPMM to improve performance. Therefore, these EPMMs consist of Option 1 with Option 2 or 3 EPMM elements.
- (c) EPMM demonstrated to be no longer required based on testing requirements in the MassDEP Vapor Intrusion Guidance: Site Assessment, Mitigation and Closure, Policy #WSC-16-435 (Section 3.7 and Tables 3-1 and 3-2).
- (d) EPMM eliminated during demolition and not installed in redevelopment

Table 6-2. Indoor Air Sampling and EPMM Monitoring - December 16, 2023 through June 15, 2024
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
Residential and Commercial Properties
Somerville, Massachusetts

Property	Property Type	Indoor Air Sampling	EPMM Inspection
91-93 Franklin Street	Residential	Not Sampled	NA
95 Franklin Street	Residential	Not Sampled	NA
95R Franklin Street	Residential	Not Sampled	NA
97 Franklin Street	Residential	5/23/2024	--
163 Glen Street	Residential	Not Sampled	NA
166-168 Glen Street	Residential	Not Sampled	NA
9 Knowlton Street	Residential	Not Sampled	NA
13 Knowlton Street	Residential	Not Sampled	NA
17 Knowlton Street	Residential	Not Sampled	NA
32 Knowlton Street	Residential	Not Sampled	NA
34 Knowlton Street	Residential	Not Sampled	NA
31-33 Knowlton Street	Residential	Not Sampled	5/7/2024
35-37 Knowlton Street	Residential	Not Sampled	NA
4 Morton Street	Residential	Not Sampled	NA
10 Morton Street	Residential	Not Sampled	NA
11 Morton Street	Residential	Not Sampled	NA
12 Morton Street	Residential	Not Sampled	2/6/2024
13 Morton Street	Residential	Not Sampled	NA
18 Morton Street	Residential	Not Sampled	NA
19-19A Morton Street	Residential	Not Sampled	4/4/2024
23 Tufts Street	Residential	Not Sampled	NA
27 Tufts Street	Residential	Not Sampled	NA
31 Tufts Street	Residential	01/30/24	NA
103 Washington	Residential	3/4/2024	--
105-107 Washington Street	Residential	Not Sampled	--

General Notes:

1. EPMM = Exposure Pathway Mitigation Measure.
2. See Appendix E for Air Sampling Checklists and Appendix H for EPMM forms.
3. See Section 6 for a description of EPMM Inspection activities. 60 Tufts Street EPMM is inspected quarterly; see Section 7.
4. NA = No inspection was performed during this reporting period.
5. SSDS = Sub-slab depressurization system.

**Table 7-1. Summary of SSDS Monitoring Events - 60 Tufts Street
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts**

Monitoring Date	Monitoring Event per RMR Report Period	Type of Monitoring Event	SSDS Field Parameters Measured	Analytical Samples Collected (Yes/No)?
1/8/2024	1	SSDS Quarterly Monitoring	-Pressure readings and VOC concentrations at system influent/effluent and blower. -System flow rate.	No
4/25/2024	2	SSDS Quarterly Monitoring	-Pressure readings and VOC concentrations at system influent/effluent and blower. -System flow rate.	No

General Notes:

1. SSDS = Sub-Slab Depressurization System.
2. RMR = Remedial Monitoring Report.
3. VOC = Volatile Organic Compound.
4. VOC measurements collected with a ppm-RAE calibrated to 100 ppm isobutylene gas.
5. Pressure readings collected using a Dwyer 475-000-FM manometer.

Table 8-1. Summary of SSDS Monitoring Events - 50 Tufts Street
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Monitoring Date	Monitoring Event per RMR Report Period	Type of Monitoring Event	SSDS Field Parameters Measured	Analytical Samples Collected (Yes/No)?
1/6/2024	1	SSDS Quarterly Monitoring	-Pressure readings and VOC concentrations at the combined influent, and effluent pipes. -Pressure readings and VOC concentrations at carbon tanks. -System flow rate.	No
2/12/2024	2	SSDS Monthly Monitoring	-VOC concentrations at the combined influent, and effluent pipes. -VOC concentrations at carbon tanks.	No
3/12/2024	3	SSDS Monthly Monitoring	-VOC concentrations at the combined influent, and effluent pipes. -VOC concentrations at carbon tanks.	No
4/25/2024	4	SSDS Quarterly Monitoring	-Pressure readings and VOC concentrations at the combined influent, and effluent pipes. -Pressure readings and VOC concentrations at carbon tanks. -System flow rate.	No
5/10/2024	5	SSDS Monthly Monitoring	-VOC concentrations at the combined influent, and effluent pipes. -VOC concentrations at carbon tanks.	No

General Notes:

1. SSDS = Sub-Slab Depressurization System.
2. RMR = Remedial Monitoring Report.
3. VOC = Volatile Organic Compound.
4. VFD = Variable Flow Drive.
5. SVT/SVE = Soil Vapor Temporary Point/Soil Vapor Extraction.
6. VOC measurements collected with a ppm-RAE calibrated to 100 parts per million (ppm) with 10.6V lamp.
7. Pressure readings collected using a Dwyer 475-000-FM manometer.

Table 9-1. Groundwater Elevations
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Monitoring Well ID	Well Screen Interval (ft bgs)	Gauging Date:	5/15/2006		5/16/2006		5/23/2006		5/31/2006		7/24/2006		8/1/2006		8/3/2006		8/16/2006	
		Elevation of Measuring Point (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)
MW-1	unknown	25.90	9.69	16.21	9.53	16.37	10.9	15	11.39	14.51	--	--	--	--	--	--	11.9	14
MW-2	unknown	25.38	8.99	16.39	10.36	15.02	Dry	Dry	Dry	Dry	--	--	--	--	--	--	Dry	Dry
MW-3	unknown	25.31	8.88	16.43	9.32	15.99	11.16	14.15	12.71	12.6	--	--	--	--	--	--	13.73	11.58
MW-101	9 - 19	26.75	--	--	10.56	16.19	11.53	15.22	12.1	14.65	12.33	14.42	12.51	14.24	13.47	13.28	12.78	13.97
MW-102	6 - 16	18.89	--	--	6.62	12.27	6.86	12.03	7.44	11.45	7.93	10.96	8.16	10.73	9.11	9.78	8.51	10.38
MW-103	6 - 16	19.47	--	--	9.5	19.47	10.37	9.1	10.74	8.73	11.15	8.32	11.31	8.16	12.24	7.23	11.72	7.75
MW-104	5 - 15	17.67	--	--	--	--	7.93	9.74	8.89	8.78	9.06	8.61	9.39	8.28	10.29	7.38	9.87	7.8
MW-104R	5 - 15	15.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-105	19 - 29	38.84	--	--	19.49	19.35	20.21	18.63	20.7	18.14	21.18	17.66	21.43	17.41	22.41	16.43	21.91	16.93
MW-106	9 - 19	26.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-107	2 - 12	14.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-108	2 - 12	12.74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-109	3 - 13	24.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-110	3 - 13	15.58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111	4 - 14	18.95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-112	3 - 10	18.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-112a	4 - 19	17.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-113	10 - 20	26.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114	7 - 17	29.43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-115	10 - 25	27.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-116	5 - 15	13.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-117S	5 - 20	21.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-117T	35 - 45	21.87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-117D	60 - 70	21.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-118S	3 - 14	15.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-118T	39.5 - 49.5	15.30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-118D	70 - 80	15.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-119S	5 - 20	11.74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-119T	42 - 47	11.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-120S	5 - 20	12.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-120D	28 - 38	12.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-121S	5 - 20	12.44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-121D	32 - 47	12.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-122	4 - 16	16.42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GEO-1	5 - 20	25.88	9.69	16.19	9.9	15.98	10.92	14.96	11.36	14.52	--	--	--	--	--	--	11.82	14.06
GEO-2	5 - 20	26.54	9.76	16.78	--	--	11.38	15.16	11.91	14.63	--	--	--	--	--	--	12.51	14.03
GEO-3	5 - 20	25.64	10.43	15.21	9.59	16.05	9.87	15.77	10.67	14.97	11.67	13.97	11.85	13.79	12.84	12.8	12.25	13.39
GEO-4	4 - 19	21.69	--	--	7.79	13.9	9.85	11.84	10.78	10.91	11.25	10.44	11.45	10.24	12.43	9.26	11.9	9.79
GEO-5	5 - 20	20.14	--	--	6.78	13.36	9.08	11.06	9.96	10.18	10.29	9.85	10.56	9.58	11.51	8.63	10.99	9.15
GEO-6	5 - 20	17.62	--	--	5.66	11.96	7.39	10.23	8.23	9.39	8.43	9.19	8.73	8.89	9.64	7.98	9.25	8.37
SH-1	9 - 14	29.55	10.15	19.4	11.4	18.15	Dry	Dry	Dry	Dry	--	--	--	--	--	--	Dry	Dry
SH-2	7 - 14	29.64	5.71	23.93	7.86	21.78	12.07	17.57	12.22	17.42	--	--	--	--	--	--	11.98	17.66
SH-3	8 - 13	29.66	7.54	22.12	8.56	21.1	12.73	16.93	12.96	16.7	--	--	--	--	--	--	Dry	Dry
SH-4	11 - 16	29.63	13.53	16.1	13.48	16.15	14.48	15.15	15.02	14.61	--	--	--	--	--	--	15.09	14.54
SH-5	8 - 13	29.63	Dry	Dry	--	--	12.99	16.64	13.03	16.6	--	--	--	--	--	--	Dry	Dry
SH-MW1	10 - 30	24.02	6.72	17.3	--	--	11.44	12.58	12.18	11.84	--	--	--	--	--	--	13.09	10.93
SH-MW2	10 - 25	24.27	9.33	14.94	--	--	12.05	12.22	12.69	11.58	--	--	--	--	--	--	13.38	10.89
SH-MW2R	10 - 23	24.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW3	10 - 24	22.31	7.8	14.51	--	--	10.26	12.05	11.03	11.28	--	--	--	--	--	--	13	9.31
MW201	11 - 21	27.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW202	10.5 - 20.5	27.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW203	6 - 18	21.80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW203R	13 - 23	24.97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

- General Notes:
- ft = feet.
 - bgs = below ground surface.
 - ID = identification.
 - GW = groundwater.
 - NAVD = North American Vertical Datum of 1988.
 - The top of the PVC riser was used as the measuring point for depth to groundwater.
 - "--" = Well not yet installed, abandoned, or not measured.
 - NM = Not measured.

Table 9-1. Groundwater Elevations
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Monitoring Well ID	Well Screen Interval (ft bgs)	Gauging Date:	9/29/2006		10/4/2006		11/14/2006		12/12/2006		1/16/2007		2/12/2007		3/14/2007		4/12/2007	
		Elevation of Measuring Point (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)
MW-1	unknown	25.90	--	--	11.88	14.02	--	--	--	--	11.6	14.3	--	--	--	--	11.39	14.51
MW-2	unknown	25.38	--	--	--	--	--	--	--	--	Destroyed	Destroyed	--	--	--	--	--	--
MW-3	unknown	25.31	--	--	13.75	11.56	--	--	--	--	13.05	12.26	--	--	--	--	12.57	12.74
MW-101	9 - 19	26.75	12.85	13.9	12.76	13.99	12.25	14.5	12.57	14.18	12.4	14.35	12.81	13.94	12.34	14.41	12.11	14.64
MW-102	6 - 16	18.89	8.68	10.21	8.52	10.37	7.64	11.25	8.01	10.88	7.72	11.17	8.52	10.37	--	--	7.46	11.43
MW-103	6 - 16	19.47	11.98	7.49	11.92	7.55	11	8.47	11.21	8.26	10.88	8.59	11.74	7.73	11	8.47	10.66	8.81
MW-104	5 - 15	17.67	9.95	7.72	9.92	7.75	--	--	--	--	8.73	8.94	--	--	--	--	8.75	8.92
MW-104R	5 - 15	15.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-105	19 - 29	38.84	22.27	16.57	22.18	16.66	21.16	17.68	21.76	17.08	21.46	17.38	22.03	16.81	21.56	17.28	20.88	17.96
MW-106	9 - 19	26.33	--	--	--	--	--	--	--	--	--	--	12.27	14.06	12.91	13.42	11.65	14.68
MW-107	2 - 12	14.63	--	--	--	--	--	--	--	--	--	--	4.54	10.09	4.5	10.13	4.49	10.14
MW-108	2 - 12	12.74	--	--	--	--	--	--	--	--	--	--	4.93	7.81	4.02	8.72	9.91	2.83
MW-109	3 - 13	24.12	--	--	--	--	--	--	--	--	--	--	12.07	12.05	11.27	12.85	10.27	13.85
MW-110	3 - 13	15.58	--	--	--	--	--	--	--	--	--	--	5.99	9.59	1.46	14.12	1.04	14.54
MW-111	4 - 14	18.95	--	--	--	--	--	--	--	--	--	--	11.38	7.57	10.62	8.33	10.65	8.3
MW-112	3 - 10	18.16	--	--	--	--	--	--	--	--	--	--	Dry	Dry	8.01	10.15	Dry	Dry
MW-112a	4 - 19	17.78	--	--	--	--	--	--	--	--	--	--	--	--	12.76	5.02	12.76	5.02
MW-113	10 - 20	26.16	--	--	--	--	--	--	--	--	--	--	--	--	11.66	14.5	11.44	14.72
MW-114	7 - 17	29.43	--	--	--	--	--	--	--	--	--	--	--	--	12.67	16.76	11.27	18.16
MW-115	10 - 25	27.15	--	--	--	--	--	--	--	--	--	--	--	--	17.19	9.96	16.21	10.94
MW-116	5 - 15	13.45	--	--	--	--	--	--	--	--	--	--	--	--	8.78	4.67	8.34	5.11
MW-117S	5 - 20	21.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-117T	35 - 45	21.87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-117D	60 - 70	21.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-118S	3 - 14	15.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-118T	39.5 - 49.5	15.30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-118D	70 - 80	15.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-119S	5 - 20	11.74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-119T	42 - 47	11.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-120S	5 - 20	12.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-120D	28 - 38	12.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-121S	5 - 20	12.44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-121D	32 - 47	12.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-122	4 - 16	16.42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GEO-1	5 - 20	25.88	--	--	11.85	14.03	--	--	--	--	11.55	14.33	--	--	--	--	11.36	14.52
GEO-2	5 - 20	26.54	--	--	12.51	14.03	--	--	--	--	12.2	14.34	--	--	--	--	11.97	14.57
GEO-3	5 - 20	25.64	12.37	2.84	12.35	13.29	11.63	14.01	11.72	13.92	11.58	14.06	12.21	13.43	11.49	14.15	10.76	14.88
GEO-4	4 - 19	21.69	12.09	9.6	12.04	9.65	10.58	11.11	11.31	10.38	10.77	10.92	11.83	9.86	11.03	10.66	10.51	11.18
GEO-5	5 - 20	20.14	11.21	8.93	11.15	8.99	9.47	10.67	10.48	9.66	9.73	10.41	11.02	9.12	10.15	9.99	9.7	10.44
GEO-6	5 - 20	17.62	9.41	8.21	9.26	8.36	7.65	9.97	8.82	8.8	8.11	9.51	9.3	8.32	8.54	9.08	8.32	9.3
SH-1	9 - 14	29.55	--	--	Dry	Dry	--	--	--	--	Dry	Dry	--	--	--	--	--	--
SH-2	7 - 14	29.64	--	--	12	17.64	--	--	--	--	Dry	Dry	--	--	--	--	--	--
SH-3	8 - 13	29.66	--	--	Dry	Dry	--	--	--	--	Dry	Dry	--	--	--	--	--	--
SH-4	11 - 16	29.63	--	--	15.1	14.53	--	--	--	--	Dry	Dry	--	--	--	--	--	--
SH-5	8 - 13	29.63	--	--	Dry	Dry	--	--	--	--	Dry	Dry	--	--	--	--	--	--
SH-MW1	10 - 30	24.02	--	--	13.17	10.85	--	--	--	--	12.21	11.81	--	--	--	--	12.01	12.01
SH-MW2	10 - 25	24.27	--	--	13.41	10.86	--	--	--	--	12.73	11.54	--	--	--	--	12.61	11.66
SH-MW2R	10 - 23	24.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW3	10 - 24	22.31	--	--	12.04	10.27	--	--	--	--	11.04	11.27	--	--	--	--	10.81	11.5
MW201	11 - 21	27.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW202	10.5 - 20.5	27.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW203	6 - 18	21.80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW203R	13 - 23	24.97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

- General Notes:**
- ft = feet.
 - bgs = below ground surface.
 - ID = identification.
 - GW = groundwater.
 - NAVD = North American Vertical Datum of 1988.
 - The top of the PVC riser was used as the measuring point for depth to groundwater.
 - "--" = Well not yet installed, abandoned, or not measured.
 - NM = Not measured.

Table 9-1. Groundwater Elevations
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Monitoring Well ID	Well Screen Interval (ft bgs)	Gauging Date:	5/29/2007		6/26/2007		7/16/2007		8/22/2007		9/27/2007		10/23/2007		11/30/2007		1/9/2008	
		Elevation of Measuring Point (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)
MW-1	unknown	25.90	11.41	14.49	11.8	14.1	12.04	13.86	--	--	12.26	13.64	12.07	13.83	11.95	13.95	--	--
MW-2	unknown	25.38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	unknown	25.31	14.89	10.42	13.6	11.71	13.94	11.37	--	--	14.34	10.97	13.94	11.37	13.75	11.56	12.86	12.45
MW-101	9 - 19	26.75	12.17	14.58	12.62	14.13	12.85	13.9	13.03	13.72	13.17	13.58	12.91	13.84	13.82	12.93	12.11	14.64
MW-102	6 - 16	18.89	6.72	12.17	8.36	10.53	8.74	10.15	9.08	9.81	9.35	9.54	8.97	9.92	8.01	10.88	7.46	11.43
MW-103	6 - 16	19.47	10.81	8.66	11.47	8.0	11.92	7.55	12.3	7.17	12.63	6.84	--	--	12.18	7.29	10.74	8.73
MW-104	5 - 15	17.67	--	--	9.62	8.05	10.09	7.58	10.36	7.31	10.61	7.06	10.31	7.36	10.07	7.6	8.86	8.81
MW-104R	5 - 15	15.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-105	19 - 29	38.84	20.86	17.98	21.55	17.29	22.13	16.71	22.79	16.05	23.18	15.66	22.96	15.88	22.74	16.1	21.39	17.45
MW-106	9 - 19	26.33	11.69	14.64	12.07	14.26	12.33	14	12.48	13.85	12.61	13.72	12.39	13.94	12.27	14.06	11.71	14.62
MW-107	2 - 12	14.63	4.46	10.17	4.48	10.15	4.52	10.11	4.75	9.88	4.51	10.12	4.47	10.16	4.44	10.19	4.35	10.28
MW-108	2 - 12	12.74	4.25	8.49	5.06	7.68	6.59	6.15	6.25	6.49	6.28	6.46	5.86	6.88	4.74	8.0	3.71	9.03
MW-109	3 - 13	24.12	10.73	13.39	11.76	12.36	12.24	11.88	Dry	Dry	Dry	Dry	Dry	Dry	12.78	11.34	10.64	13.48
MW-110	3 - 13	15.58	2.56	13.02	6.57	9.01	7.17	8.41	7.86	7.72	8.37	7.21	6.92	8.66	3.34	12.24	--	--
MW-111	4 - 14	18.95	10.68	8.27	11.11	7.84	11.54	7.41	11.96	6.99	12.34	6.61	11.99	6.96	12.27	6.68	10.51	8.44
MW-112	3 - 10	18.16	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-112a	4 - 19	17.78	12.67	5.11	12.81	4.97	12.88	4.9	--	--	12.95	4.83	12.8	4.98	--	--	12.43	5.35
MW-113	10 - 20	26.16	11.51	14.65	11.99	14.17	12.22	13.94	12.43	13.73	12.58	13.58	12.3	13.86	12.6	13.56	11.5	14.66
MW-114	7 - 17	29.43	11.53	17.9	12.88	16.55	15.57	13.86	14.24	15.19	14.84	14.59	14.66	14.77	14.31	15.12	12.08	17.35
MW-115	10 - 25	27.15	16.63	10.52	17.42	9.73	17.97	9.18	18.38	8.77	18.81	8.34	18.37	8.78	18.24	8.91	16.18	10.97
MW-116	5 - 15	13.45	8.65	4.8	8.76	4.69	--	--	8.85	4.6	8.91	4.54	8.83	4.62	--	--	8.6	4.85
MW-117S	5 - 20	21.94	--	--	--	--	15.27	6.67	15.7	6.24	16.03	5.91	16.2	5.74	15.95	5.99	13.97	7.97
MW-117T	35 - 45	21.87	--	--	--	--	15.95	5.92	16.38	5.49	16.81	5.06	16.91	4.96	16.58	5.29	14.58	7.29
MW-117D	60 - 70	21.78	--	--	--	--	15.87	5.91	16.26	5.52	16.69	5.09	16.77	5.01	16.44	5.34	14.46	7.32
MW-118S	3 - 14	15.52	--	--	--	--	11.64	3.88	9.84	5.68	10.2	5.32	9.42	6.1	9.4	6.12	8.55	6.97
MW-118T	39.5 - 49.5	15.30	--	--	--	--	10.36	4.94	10.51	4.79	10.74	4.56	10.68	4.62	10.5	4.8	9.93	5.37
MW-118D	70 - 80	15.15	--	--	--	--	10.18	4.97	10.32	4.83	10.55	4.6	10.49	4.66	10.25	4.9	9.55	5.6
MW-119S	5 - 20	11.74	--	--	--	--	--	--	4.91	6.83	4.99	6.75	4.93	6.81	4.85	6.89	4.63	7.11
MW-119T	42 - 47	11.67	--	--	--	--	--	--	6.45	5.22	6.8	4.87	6.72	4.95	6.57	5.1	5.82	5.85
MW-120S	5 - 20	12.54	--	--	--	--	--	--	5.25	7.29	5.35	7.19	4.71	7.83	4.62	7.92	3.51	9.03
MW-120D	28 - 38	12.45	--	--	--	--	--	--	--	--	4.21	8.24	3.94	8.51	3.48	8.97	3.17	9.28
MW-121S	5 - 20	12.44	--	--	--	--	--	--	--	--	--	--	7.36	5.08	7.41	5.03	7.24	5.2
MW-121D	32 - 47	12.81	--	--	--	--	--	--	--	--	--	--	7.92	4.89	7.75	5.06	6.95	5.86
MW-122	4 - 16	16.42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GEO-1	5 - 20	25.88	11.38	14.5	11.73	14.15	11.93	13.95	12.1	13.78	12.21	13.67	11.98	13.9	11.91	13.97	11.41	14.47
GEO-2	5 - 20	26.54	11.99	14.55	12.4	14.14	13.6	12.94	12.81	13.73	12.91	13.63	12.63	13.91	12.57	13.97	12.02	14.52
GEO-3	5 - 20	25.64	11.04	14.6	11.94	13.7	--	--	12.7	12.94	12.94	12.7	12.61	13.03	12.54	13.1	10.99	14.65
GEO-4	4 - 19	21.69	10.87	10.82	11.64	10.05	12.09	9.6	12.55	9.14	13.02	8.67	12.64	9.05	12.47	9.22	11.72	9.97
GEO-5	5 - 20	20.14	10.01	10.13	10.79	9.35	11.25	8.89	11.74	8.4	11.18	8.96	11.72	8.42	12.62	7.52	9.92	10.22
GEO-6	5 - 20	17.62	8.25	9.37	8.9	8.72	9.5	8.12	9.92	7.7	10.22	7.4	9.96	7.66	9.96	7.66	8.21	9.41
SH-1	9 - 14	29.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-2	7 - 14	29.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-3	8 - 13	29.66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-4	11 - 16	29.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-5	8 - 13	29.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW1	10 - 30	24.02	12.26	11.76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW2	10 - 25	24.27	12.74	11.53	13.25	11.02	13.48	10.79	13.72	10.55	14.04	10.23	13.68	10.59	13.85	10.42	12.77	11.5
SH-MW2R	10 - 23	24.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW3	10 - 24	22.31	--	--	11.72	10.59	12.08	10.23	12.43	9.88	12.79	9.52	12.41	9.9	12.05	10.26	11.55	10.76
MW201	11 - 21	27.51	--	--	--	--	--	--	13.71	13.8	13.83	13.68	13.58	13.93	13.5	14.01	12.98	14.53
MW202	10.5 - 20.5	27.82	--	--	--	--	--	--	13.99	13.83	14.08	13.74	13.88	13.94	13.81	14.01	13.41	14.41
MW203	6 - 18	21.80	--	--	--	--	--	--	14.05	7.75	14.39	7.41	13.86	7.94	13.61	8.19	12.86	8.94
MW203R	13 - 23	24.97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

- General Notes:
- ft = feet.
 - bgs = below ground surface.
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 - GW = groundwater.
 - NAVD = North American Vertical Datum of 1988.
 - The top of the PVC riser was used as the measuring point for depth to groundwater.
 - "--" = Well not yet installed, abandoned, or not measured.
 - NM = Not measured.

Table 9-1. Groundwater Elevations
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Monitoring Well ID	Well Screen Interval (ft bgs)	Gauging Date:	2/26/2008		3/18/2008		4/15/2008		5/19/2008		7/14/08		8/22/08		10/20/08		1/13/09	
		Elevation of Measuring Point (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)
MW-1	unknown	25.90	--	--	--	--	11.42	14.48	11.57	14.33	--	--	--	--	--	--	--	--
MW-2	unknown	25.38	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--
MW-3	unknown	25.31	12.05	13.26	12.37	12.94	12.81	12.5	12.99	---	--	--	--	--	--	--	12.49	12.82
MW-101	9 - 19	26.75	--	--	11.85	14.9	12.02	14.73	12.26	14.49	13.11	13.64	--	--	12.61	14.14	12.07	14.68
MW-102	6 - 16	18.89	7.29	11.6	7.17	11.72	8.57	10.32	7.9	10.99	9.51	9.38	8.00	10.89	8.49	10.4	7.50	11.39
MW-103	6 - 16	19.47	10.51	8.96	10.5	8.97	10.82	8.65	11.11	8.36	12.17	7.30	11.17	8.30	11.87	7.6	10.73	8.74
MW-104	5 - 15	17.67	8.61	9.06	8.48	9.19	9.84	7.83	9.25	8.42	9.67	8.00	9.06	8.61	9.72	7.95	8.71	8.96
MW-104R	5 - 15	15.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-105	19 - 29	38.84	20.79	18.05	20.41	18.43	20.91	17.93	21.24	17.6	22.02	16.82	21.40	17.44	21.8	17.04	20.9	17.94
MW-106	9 - 19	26.33	11.51	14.82	11.38	14.95	12.54	13.79	11.72	14.61	11.68	14.65	11.73	14.60	11.64	14.69	11.6	14.73
MW-107	2 - 12	14.63	--	--	4.46	10.17	5.58	9.05	---	---	4.52	10.11	4.41	10.22	4.49	10.14	4.5	10.13
MW-108	2 - 12	12.74	4.61	8.13	3.68	9.06	3.91	8.83	3.99	8.75	5.16	7.58	4.44	8.30	4.71	8.03	3.4	9.34
MW-109	3 - 13	24.12	10.06	14.06	10.02	14.1	11.64	12.48	11.29	12.83	11.87	12.25	11.18	12.94	11.73	12.39	10.43	13.69
MW-110	3 - 13	15.58	0.79	14.79	1.12	14.46	1.57	14.01	2.5	13.08	--	--	3.59	11.99	--	--	1.45	14.13
MW-111	4 - 14	18.95	10.5	8.45	10.54	8.41	16.64	2.31	10.71	8.24	12.23	6.72	10.73	8.22	11.37	7.58	10.55	8.4
MW-112	3 - 10	18.16	Dry	Dry	--	--	----	----	----	----	--	--	8.33	9.83	--	--	--	--
MW-112a	4 - 19	17.78	12.52	5.26	12.61	5.17	13.71	4.07	12.77	5.01	13.56	4.22	12.93	4.85	13.01	4.77	12.78	5.0
MW-113	10 - 20	11.28	11.28	14.88	11.15	15.01	11.39	14.77	11.62	14.54	12.01	14.15	11.63	14.53	11.99	14.17	11.41	14.75
MW-114	7 - 17	29.43	11.11	18.32	10.75	18.68	12.42	17.01	12.3	17.13	13.24	16.19	12.21	17.22	13.19	16.24	11.25	18.18
MW-115	10 - 25	27.15	15.85	11.3	15.86	11.29	16.45	10.7	16.72	10.43	18.49	8.66	16.78	10.37	17.8	9.35	16.35	10.8
MW-116	5 - 15	13.45	8.68	4.77	8.77	4.68	8.85	4.6	8.88	4.57	9.09	4.36	9.01	4.44	--	--	8.94	--
MW-117S	5 - 20	21.94	13.52	8.42	13.5	8.44	14.22	7.72	14.6	7.34	14.99	6.95	13.90	8.04	14.67	7.27	14.02	7.92
MW-117T	35 - 45	21.87	13.97	7.9	13.9	7.97	14.67	7.2	14.94	6.93	15.68	6.19	15.27	6.60	15.26	6.61	14.45	7.42
MW-117D	60 - 70	21.78	13.86	7.92	13.81	7.97	14.51	7.27	14.89	6.89	15.61	6.17	14.67	7.11	15.27	6.51	14.3	7.48
MW-118S	3 - 14	15.52	8.34	7.18	8.4	7.12	10	5.52	9.38	6.14	9.64	5.88	8.48	7.04	9.05	6.47	8.41	7.11
MW-118T	39.5 - 49.5	15.30	9.49	5.81	9.53	5.77	9.83	5.47	9.94	5.36	10.35	4.95	9.92	5.38	10.19	5.11	9.73	5.57
MW-118D	70 - 80	15.15	9.3	5.85	9.35	5.8	9.64	5.51	9.8	5.35	10.11	5.04	9.70	5.45	9.99	5.16	9.54	5.61
MW-119S	5 - 20	11.74	4.6	7.14	4.56	7.18	4.91	6.83	4.92	6.82	4.94	6.80	6.08	5.66	4.08	7.66	4.41	7.33
MW-119T	42 - 47	11.67	5.63	6.04	5.78	5.89	5.97	5.7	6.1	5.57	6.52	5.15	4.52	7.15	6.78	4.89	5.85	5.82
MW-120S	5 - 20	12.54	4.06	8.48	4.0	8.54	5.1	7.44	4.57	7.97	5.18	7.36	4.61	7.93	4.01	8.53	4.03	8.51
MW-120D	28 - 38	12.45	2.96	9.49	3.11	9.34	3.26	9.19	3.44	9.01	3.82	8.63	2.90	9.55	3.32	9.13	3.18	9.27
MW-121S	5 - 20	12.44	7.36	5.08	7.41	5.03	9.39	3.05	7.29	5.15	9.21	3.23	7.70	4.74	9.01	3.43	7.68	4.76
MW-121D	32 - 47	12.81	6.83	5.98	6.91	5.9	7.31	5.5	7.27	5.54	7.64	5.17	7.30	5.51	9.64	3.17	7.07	5.74
MW-122	4 - 16	16.42	12.98	3.44	13	3.42	13.03	3.39	12.99	3.43	13.15	3.27	13.17	3.25	11.42	5.0	13.15	3.27
GEO-1	5 - 20	25.88	11.22	14.66	--	--	11.25	14.63	11.4	14.48	12.32	13.56	12.00	13.88	12.14	13.74	11.26	14.62
GEO-2	5 - 20	26.54	11.77	14.77	--	--	12.81	13.73	12.01	14.53	11.73	14.81	11.41	15.13	11.58	14.96	11.88	14.66
GEO-3	5 - 20	25.64	10.71	14.93	--	--	10.97	14.67	---	---	12.05	13.59	11.57	14.07	--	--	--	--
GEO-4	4 - 19	21.69	10.36	11.33	10.34	11.35	11.46	10.23	11.13	10.56	11.60	10.09	11.16	10.53	11.89	9.8	10.56	11.13
GEO-5	5 - 20	20.14	9.42	10.72	9.52	10.62	10.8	9.34	10.21	9.93	10.89	9.25	10.28	9.86	11.79	8.35	9.70	10.44
GEO-6	5 - 20	17.62	7.78	9.84	7.86	9.76	9.11	8.51	8.51	9.11	9.20	8.42	7.91	9.71	10.95	6.67	8.02	9.6
SH-1	9 - 14	29.55	--	--	--	--	---	---	---	---	--	--	--	--	--	--	--	--
SH-2	7 - 14	29.64	--	--	--	--	---	---	---	---	--	--	--	--	--	--	--	--
SH-3	8 - 13	29.66	--	--	--	--	---	---	---	---	--	--	--	--	--	--	--	--
SH-4	11 - 16	29.63	--	--	--	--	---	---	---	---	--	--	--	--	--	--	--	--
SH-5	8 - 13	29.63	--	--	--	--	---	---	---	---	--	--	--	--	--	--	--	--
SH-MW1	10 - 30	24.02	--	--	--	--	---	---	---	---	--	--	--	--	--	--	--	--
SH-MW2	10 - 25	24.27	12.49	11.78	12.46	11.81	13.62	10.65	12.89	11.38	11.83	12.44	12.92	11.35	12.01	12.26	12.63	11.64
SH-MW2R	10 - 23	24.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW3	10 - 24	22.31	10.68	11.63	10.65	11.66	11.83	10.48	11.21	11.1	13.27	9.04	11.30	11.01	12.49	9.82	10.87	11.44
MW201	11 - 21	27.51	12.76	14.75	12.64	14.87	12.85	14.66	13.94	13.57	13.31	14.2	13.00	14.51	14.64	12.87	13.27	14.24
MW202	10.5 - 20.5	27.82	13.22	14.6	13.12	14.7	12.73	15.09	13.37	14.45	13.68	14.14	13.41	14.41	13.29	14.53	12.82	15
MW203	6 - 18	21.80	12.03	9.77	12	9.8	13.31	8.49	12.68	9.12	13.15	8.65	12.55	9.25	13.02	8.78	12.25	9.55
MW203R	13 - 23	24.97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

- General Notes:
- ft = feet.
 - bgs = below ground surface.
 - ID = identification.
 - GW = groundwater.
 - NAVD = North American Vertical Datum of 1988.
 - The top of the PVC riser was used as the measuring point for depth to groundwater.
 - "--" = Well not yet installed, abandoned, or not measured.
 - NM = Not measured.

Table 9-1. Groundwater Elevations
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Monitoring Well ID	Well Screen Interval (ft bgs)	Gauging Date:	4/13/09		7/14/09		10/14/09		4/12/10		10/27/10		4/20/11		11/16/11		4/16/12	
		Elevation of Measuring Point (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)
MW-1	unknown	25.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	unknown	25.38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	unknown	25.31	12.28	13.03	12.92	12.39	13.19	12.12	--	--	--	--	--	--	--	--	--	--
MW-101	9 - 19	26.75	11.91	14.84	12.2	14.55	12.37	14.38	11.61	15.14	--	--	11.73	15.02	--	--	12.71	14.04
MW-102	6 - 16	18.89	7.35	11.54	7.85	11.04	7.99	10.9	7.11	11.78	--	--	7.04	11.85	--	--	8.53	10.36
MW-103	6 - 16	19.47	10.57	8.9	11.07	8.4	11.34	8.13	10.47	9.00	--	--	10.39	9.08	--	--	11.79	7.68
MW-104	5 - 15	17.67	7.98	9.69	8.84	8.83	9.38	8.29	8.52	9.15	--	--	9.28	8.39	--	--	10.24	7.43
MW-104R	5 - 15	15.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-105	19 - 29	38.84	20.65	18.19	21.4	17.44	21.8	17.04	19.84	19.00	--	--	20.63	18.21	--	--	--	--
MW-106	9 - 19	26.33	11.49	14.84	overflowing	--	overflowing	--	11.16	15.17	--	--	11.39	14.94	--	--	--	--
MW-107	2 - 12	14.63	4.47	10.16	overflowing	--	overflowing	--	4.31	10.32	--	--	4.43	10.2	--	--	--	--
MW-108	2 - 12	12.74	3.73	9.01	4.37	8.37	4.66	8.08	3.86	8.88	--	--	3.56	9.18	--	--	4.72	8.02
MW-109	3 - 13	24.12	10.4	13.72	11.11	13.01	--	--	9.88	14.24	--	--	10.10	14.02	--	--	12.15	11.97
MW-110	3 - 13	15.58	1.1	14.48	2.88	12.7	2.42	13.16	1.39	14.19	--	--	1.67	13.91	--	--	--	--
MW-111	4 - 14	18.95	10.56	8.39	10.67	8.28	10.41	8.54	10.57	8.38	--	--	10.62	8.33	--	--	11.6	7.35
MW-112	3 - 10	18.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-112a	4 - 19	17.78	12.63	5.15	12.78	5.0	12.58	5.2	12.62	5.16	12.31	5.47	12.14	5.64	12.30	5.48	12.70	5.08
MW-113	10 - 20	26.16	11.23	14.93	11.56	14.6	11.73	14.43	10.93	15.23	--	--	11.00	15.16	--	--	12.11	14.05
MW-114	7 - 17	29.43	10.97	18.46	12.04	17.39	--	--	10.24	19.19	--	--	10.46	18.97	--	--	13.70	15.73
MW-115	10 - 25	27.15	15.4	11.75	16.58	10.57	17.4	9.75	16.43	10.72	--	--	16.22	10.93	--	--	18.51	8.64
MW-116	5 - 15	13.45	8.87	4.58	8.97	4.48	8.76	4.69	8.85	4.6	--	--	8.32	5.13	--	--	--	--
MW-117S	5 - 20	21.94	14.38	7.56	14.66	7.28	14.75	7.19	13.32	8.62	--	--	14.06	7.88	--	--	9.06	12.88
MW-117T	35 - 45	21.87	14.43	7.44	15.03	6.84	15.26	6.61	13.56	8.31	--	--	14.18	7.69	--	--	15.58	6.29
MW-117D	60 - 70	21.78	14.26	7.52	14.89	6.89	15.13	6.65	13.48	8.3	--	--	14.01	7.77	--	--	15.81	5.97
MW-118S	3 - 14	15.52	8.7	6.82	9.43	6.09	9.01	6.51	8.31	7.21	--	--	8.55	6.97	--	--	9.66	5.86
MW-118T	39.5 - 49.5	15.30	9.64	5.66	9.92	5.38	9.99	5.31	9.49	5.81	--	--	9.33	5.97	--	--	10.30	5
MW-118D	70 - 80	15.15	9.47	5.68	9.74	5.41	9.73	5.42	9.29	5.86	--	--	9.15	6.00	--	--	10.11	5.04
MW-119S	5 - 20	11.74	4.21	7.53	4.47	7.27	4.33	7.41	4.33	7.41	--	--	4.08	7.66	--	--	5.14	6.6
MW-119T	42 - 47	11.67	5.8	5.87	6.04	5.63	6.01	5.66	5.68	5.99	--	--	5.55	6.12	--	--	6.50	5.17
MW-120S	5 - 20	12.54	3.85	8.69	4.31	8.23	3.58	8.96	3.98	8.56	--	--	3.65	8.89	--	--	4.78	7.76
MW-120D	28 - 38	12.45	3.11	9.34	3.31	9.14	3.29	9.16	3.04	9.41	--	--	3.18	9.27	--	--	3.87	8.58
MW-121S	5 - 20	12.44	7.57	4.87	7.62	4.82	7.71	4.73	7.67	4.77	--	--	7.12	5.32	--	--	7.26	5.18
MW-121D	32 - 47	12.81	6.98	5.83	7.27	5.54	7.37	5.44	6.87	5.94	--	--	6.77	6.04	--	--	7.69	5.12
MW-122	4 - 16	16.42	13.16	3.26	13.14	3.28	13.12	3.3	13.09	3.33	13.04	3.38	13.06	3.36	13.16	3.26	13.1	3.32
GEO-1	5 - 20	25.88	11.07	14.81	11.31	14.57	11.54	14.34	17.06	8.82	--	--	10.92	14.96	--	--	--	--
GEO-2	5 - 20	26.54	11.7	14.84	11.99	14.55	12.25	14.29	11.41	15.13	--	--	10.55	15.99	--	--	11.81	14.73
GEO-3	5 - 20	25.64	10.86	14.78	11.48	14.16	11.79	13.85	10.27	15.37	--	--	10.62	15.02	--	--	12.21	13.43
GEO-4	4 - 19	21.69	10.21	11.48	11.00	10.69	--	--	10.26	11.43	--	--	--	--	--	--	11.98	9.71
GEO-5	5 - 20	20.14	9.30	10.84	10.08	10.06	10.44	9.7	9.48	10.66	--	--	9.18	10.96	--	--	11.18	8.96
GEO-6	5 - 20	17.62	7.48	10.14	8.18	9.44	8.66	8.96	7.62	10	--	--	7.63	9.99	--	--	9.54	8.08
SH-1	9 - 14	29.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-2	7 - 14	29.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-3	8 - 13	29.66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-4	11 - 16	29.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-5	8 - 13	29.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW1	10 - 30	24.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW2	10 - 25	24.27	12.33	11.94	12.77	11.5	13.01	11.26	10.61	13.66	--	--	12.29	11.98	--	--	13.53	10.74
SH-MW2R	10 - 23	24.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW3	10 - 24	22.31	10.52	11.79	11.12	11.19	11.46	10.85	12.39	9.92	--	--	10.46	11.85	--	--	12.00	10.31
MW201	11 - 21	27.51	12.69	14.82	12.94	14.57	13.09	14.42	12.42	15.09	--	--	12.57	14.94	--	--	13.43	14.08
MW202	10.5 - 20.5	27.82	13.15	14.67	13.33	14.49	13.55	14.27	12.94	14.88	--	--	13.02	14.80	--	--	--	--
MW203	6 - 18	21.80	11.5	10.3	12.29	9.51	12.77	9.03	12.03	9.77	--	--	11.83	9.97	--	--	13.85	7.95
MW203R	13 - 23	24.97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

- General Notes:
- ft = feet.
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 - GW = groundwater.
 - NAVD = North American Vertical Datum of 1988.
 - The top of the PVC riser was used as the measuring point for depth to groundwater.
 - "--" = Well not yet installed, abandoned, or not measured.
 - NM = Not measured.

Table 9-1. Groundwater Elevations
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Monitoring Well ID	Well Screen Interval (ft bgs)	Gauging Date:	11/12/12		4/23/13		11/18/13		4/30/14		6/11/14		11/18/14		4/1/15		4/17/15	
		Elevation of Measuring Point (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)
MW-1	unknown	25.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	unknown	25.38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	unknown	25.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-101	9 - 19	26.75	--	--	12.41	14.34	--	--	12.03	14.72	--	--	--	--	--	--	--	--
MW-102	6 - 16	18.89	--	--	8.01	10.88	--	--	7.68	11.21	--	--	--	--	6.99	11.9	--	--
MW-103	6 - 16	19.47	--	--	11.22	8.25	--	--	10.96	8.51	--	--	--	--	10.43	9.04	--	--
MW-104	5 - 15	17.67	--	--	9.64	8.03	--	--	9.5	8.17	--	--	--	--	8.04	9.63	--	--
MW-104R	5 - 15	15.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-105	19 - 29	38.84	--	--	21.31	17.53	--	--	--	--	--	--	--	--	--	--	--	--
MW-106	9 - 19	26.33	--	--	--	--	--	--	11.71	14.62	--	--	--	--	--	--	--	--
MW-107	2 - 12	14.63	--	--	--	--	--	--	3.61	11.02	--	--	--	--	--	--	--	--
MW-108	2 - 12	12.74	--	--	4.34	8.4	--	--	4.09	8.65	--	--	--	--	3.31	9.43	--	--
MW-109	3 - 13	24.12	--	--	11.37	12.75	--	--	10.79	13.33	--	--	--	--	9.61	14.51	--	--
MW-110	3 - 13	15.58	--	--	--	--	--	--	2.61	12.97	--	--	--	--	0.60	14.98	--	--
MW-111	4 - 14	18.95	--	--	11.01	7.94	--	--	10.96	7.99	--	--	--	--	10.80	8.15	--	--
MW-112	3 - 10	18.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-112a	4 - 19	17.78	12.72	5.06	12.80	4.98	13.11	4.67	--	--	12.86	4.92	12.39	5.39	--	--	12.86	4.92
MW-113	10 - 20	26.16	--	--	11.73	14.43	--	--	11.42	14.74	--	--	--	--	10.64	15.52	--	--
MW-114	7 - 17	29.43	--	--	12.24	17.19	--	--	12.05	17.38	--	--	--	--	10.06	19.37	--	--
MW-115	10 - 25	27.15	--	--	17.76	9.39	--	--	17.51	9.64	--	--	--	--	16.50	10.65	--	--
MW-116	5 - 15	13.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-117S	5 - 20	21.94	--	--	14.39	7.55	--	--	13.63	8.31	--	--	--	--	9.66	12.28	--	--
MW-117T	35 - 45	21.87	--	--	15.19	6.68	--	--	14.78	7.09	--	--	--	--	13.95	7.92	--	--
MW-117D	60 - 70	21.78	--	--	15.09	6.69	--	--	14.71	7.07	--	--	--	--	13.88	7.90	--	--
MW-118S	3 - 14	15.52	--	--	9.41	6.11	--	--	9.01	6.51	--	--	--	--	8.04	7.48	--	--
MW-118T	39.5 - 49.5	15.30	--	--	10.12	5.18	--	--	9.94	5.36	--	--	--	--	9.63	5.67	--	--
MW-118D	70 - 80	15.15	10.03	5.12	10.00	5.15	10.73	4.42	9.82	5.33	--	--	10.20	4.95	9.47	5.68	--	--
MW-119S	5 - 20	11.74	--	--	4.70	7.04	--	--	4.31	7.43	--	--	--	--	4.16	7.58	--	--
MW-119T	42 - 47	11.67	--	--	6.25	5.42	--	--	6.11	5.56	--	--	--	--	5.80	5.87	--	--
MW-120S	5 - 20	12.54	--	--	4.26	8.28	--	--	4.19	8.35	--	--	--	--	3.54	9.00	--	--
MW-120D	28 - 38	12.45	--	--	3.40	9.05	--	--	4.41	8.04	--	--	--	--	3.10	9.35	--	--
MW-121S	5 - 20	12.44	--	--	6.93	5.51	--	--	5.95	6.49	--	--	--	--	6.77	5.67	--	--
MW-121D	32 - 47	12.81	7.55	5.26	7.41	5.4	8.13	4.68	7.35	5.46	--	--	7.27	5.54	7.01	5.80	--	--
MW-122	4 - 16	16.42	13.16	3.26	13.14	3.28	13.12	3.3	13.12	3.30	--	--	13.04	3.38	13.15	3.27	--	--
GEO-1	5 - 20	25.88	--	--	11.50	14.38	--	--	11.19	14.69	--	--	--	--	10.69	15.19	--	--
GEO-2	5 - 20	26.54	--	--	12.19	14.35	--	--	11.99	14.55	--	--	--	--	11.34	15.20	--	--
GEO-3	5 - 20	25.64	--	--	11.57	14.07	--	--	11.10	14.54	--	--	--	--	9.92	15.72	--	--
GEO-4	4 - 19	21.69	--	--	11.29	10.4	--	--	11.09	10.6	--	--	--	--	10.17	11.52	--	--
GEO-5	5 - 20	20.14	--	--	10.45	9.69	--	--	10.25	9.89	--	--	--	--	9.29	10.85	--	--
GEO-6	5 - 20	17.62	--	--	8.56	9.06	--	--	8.30	9.32	--	--	--	--	7.84	9.78	--	--
SH-1	9 - 14	29.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-2	7 - 14	29.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-3	8 - 13	29.66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-4	11 - 16	29.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-5	8 - 13	29.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW1	10 - 30	24.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW2	10 - 25	24.27	--	--	13.13	11.14	--	--	12.95	11.32	--	--	--	--	12.41	11.86	--	--
SH-MW2R	10 - 23	24.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW3	10 - 24	22.31	--	--	11.43	10.88	--	--	11.23	11.08	--	--	--	--	10.55	11.76	--	--
MW201	11 - 21	27.51	--	--	13.15	14.36	--	--	12.97	14.54	--	--	--	--	12.40	15.11	--	--
MW202	10.5 - 20.5	27.82	--	--	13.54	14.28	--	--	13.32	14.50	--	--	--	--	12.93	14.89	--	--
MW203	6 - 18	21.80	--	--	13.15	8.65	--	--	12.92	8.88	--	--	--	--	12.05	9.75	--	--
MW203R	13 - 23	24.97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

- General Notes:
- ft = feet.
 - bgs = below ground surface.
 - ID = identification.
 - GW = groundwater.
 - NAVD = North American Vertical Datum of 1988.
 - The top of the PVC riser was used as the measuring point for depth to groundwater.
 - "--" = Well not yet installed, abandoned, or not measured.
 - NM = Not measured.

Table 9-1. Groundwater Elevations
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Monitoring Well ID	Well Screen Interval (ft bgs)	Gauging Date:	11/19/15		4/27/16		11/21/16		4/14/17		11/8/17		1/31/18		4/2/18		11/15/18	
		Elevation of Measuring Point (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)
MW-1	unknown	25.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	unknown	25.38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	unknown	25.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-101	9 - 19	26.75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-102	6 - 16	18.89	--	--	8.02	10.87	--	--	--	--	--	--	7.94	10.95	7.58	11.31	--	--
MW-103	6 - 16	19.47	--	--	11.49	7.98	--	--	--	--	--	--	11.12	8.35	10.81	8.66	--	--
MW-104	5 - 15	17.67	--	--	10.63	7.04	--	--	9.05	8.62	--	--	11.99	5.68	9.21	8.46	--	--
MW-104R	5 - 15	15.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-105	19 - 29	38.84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-106	9 - 19	26.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-107	2 - 12	14.63	--	--	4.49	10.14	--	--	4.51	10.12	--	--	4.56	10.07	4.51	10.12	--	--
MW-108	2 - 12	12.74	--	--	4.11	8.63	--	--	3.78	8.96	--	--	4.02	8.72	4.05	8.69	--	--
MW-109	3 - 13	24.12	--	--	11.25	12.87	--	--	9.86	14.26	--	--	11.02	13.10	10.51	13.61	--	--
MW-110	3 - 13	15.58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-111	4 - 14	18.95	--	--	11.50	7.45	--	--	Dry	Dry	--	--	Dry	Dry	NF	NF	--	--
MW-112	3 - 10	18.16	--	--	--	--	--	--	6.44	11.72	--	--	--	--	--	--	--	--
MW-112a	4 - 19	17.78	--	--	11.14	6.64	13.12	4.66	12.88	4.90	15.32	2.46	12.85	4.93	--	--	13.09	4.69
MW-113	10 - 20	26.16	--	--	11.65	14.51	--	--	10.83	15.33	--	--	13.90	12.26	11.35	14.81	--	--
MW-114	7 - 17	29.43	--	--	12.45	16.98	--	--	10.70	18.73	--	--	12.89	16.54	11.29	18.14	--	--
MW-115	10 - 25	27.15	--	--	18.23	8.92	--	--	17.33	9.82	--	--	18.17	8.98	17.66	9.49	--	--
MW-116	5 - 15	13.45	--	--	9.34	4.11	--	--	9.18	4.27	--	--	9.22	4.23	9.14	4.31	--	--
MW-117S	5 - 20	21.94	--	--	14.09	7.85	--	--	12.49	9.45	--	--	16.65	5.29	13.07	8.87	--	--
MW-117T	35 - 45	21.87	--	--	15.59	6.28	--	--	14.36	7.51	--	--	17.76	4.11	14.75	7.12	--	--
MW-117D	60 - 70	21.78	--	--	--	--	--	--	12.93	8.85	--	--	12.11	9.67	13.5	8.28	--	--
MW-118S	3 - 14	15.52	--	--	9.30	6.22	--	--	8.37	7.15	--	--	12.17	3.35	8.75	6.77	--	--
MW-118T	39.5 - 49.5	15.30	--	--	10.37	4.93	--	--	9.80	5.5	--	--	12.45	2.85	9.96	5.34	--	--
MW-118D	70 - 80	15.15	11.99	3.16	10.20	4.95	10.42	4.73	9.61	5.54	10.27	4.88	--	--	9.74	5.41	9.23	5.92
MW-119S	5 - 20	11.74	--	--	4.64	7.10	--	--	4.43	7.31	--	--	--	--	4.56	7.18	--	--
MW-119T	42 - 47	11.67	--	--	6.43	5.24	--	--	5.95	5.72	--	--	--	--	6.12	5.55	--	--
MW-120S	5 - 20	12.54	--	--	3.16	9.38	--	--	3.91	8.63	--	--	5.72	6.82	3.97	8.57	--	--
MW-120D	28 - 38	12.45	--	--	3.68	8.77	--	--	3.19	9.26	--	--	6.30	6.15	3.41	9.04	--	--
MW-121S	5 - 20	12.44	--	--	--	--	--	--	7.73	4.71	--	--	7.76	4.68	7.32	5.12	--	--
MW-121D	32 - 47	12.81	8.83	3.98	--	--	7.85	4.96	7.17	5.64	7.75	5.06	7.50	5.31	7.74	5.07	6.79	6.02
MW-122	4 - 16	16.42	13.23	3.19	13.19	3.23	13.21	3.21	13.18	3.24	13.17	3.25	13.19	3.23	13.13	3.29	13.17	3.25
GEO-1	5 - 20	25.88	--	--	11.39	14.49	--	--	10.75	15.13	--	--	--	--	11.11	14.77	--	--
GEO-2	5 - 20	26.54	--	--	12.18	14.36	--	--	11.51	15.03	--	--	--	--	11.83	14.71	--	--
GEO-3	5 - 20	25.64	--	--	--	--	--	--	10.25	15.39	--	--	11.40	14.24	10.79	14.85	--	--
GEO-4	4 - 19	21.69	--	--	11.61	10.08	--	--	10.59	11.1	--	--	11.20	10.49	11.20	10.49	--	--
GEO-5	5 - 20	20.14	--	--	10.94	9.20	--	--	9.81	10.33	--	--	10.44	9.70	10.2	9.94	--	--
GEO-6	5 - 20	17.62	--	--	9.72	7.90	--	--	8.42	9.2	--	--	9.12	8.50	8.67	8.95	--	--
SH-1	9 - 14	29.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-2	7 - 14	29.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-3	8 - 13	29.66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-4	11 - 16	29.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-5	8 - 13	29.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW1	10 - 30	24.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW2	10 - 25	24.27	--	--	--	--	--	--	--	--	--	--	--	--	12.84	11.43	--	--
SH-MW2R	10 - 23	24.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW3	10 - 24	22.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW201	11 - 21	27.51	--	--	13.15	14.36	--	--	--	--	--	--	15.36	12.15	13.34	14.17	--	--
MW202	10.5 - 20.5	27.82	--	--	13.53	14.29	--	--	--	--	--	--	15.77	12.05	12.86	14.96	--	--
MW203	6 - 18	21.80	--	--	13.93	7.87	--	--	--	--	--	--	15.76	6.04	12.98	8.82	--	--
MW203R	13 - 23	24.97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

- General Notes:
- ft = feet.
 - bgs = below ground surface.
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 - NAVD = North American Vertical Datum of 1988.
 - The top of the PVC riser was used as the measuring point for depth to groundwater.
 - "--" = Well not yet installed, abandoned, or not measured.
 - NM = Not measured.

Table 9-1. Groundwater Elevations
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Monitoring Well ID	Well Screen Interval (ft bgs)	Gauging Date:	4/15/19		11/22/19		4/13/20		11/18/20		4/12/21		11/30/21		4/12/22		11/29/22	
		Elevation of Measuring Point (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)
MW-1	unknown	25.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	unknown	25.38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	unknown	25.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-101	9 - 19	26.75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-102	6 - 16	18.89	7.21	11.68	--	--	7.37	11.52	--	--	8.13	10.76	--	--	--	--	--	--
MW-103	6 - 16	19.47	7.26	12.21	--	--	10.70	8.77	--	--	11.90	7.57	--	--	--	--	--	--
MW-104	5 - 15	17.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-104R	5 - 15	15.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-105	19 - 29	38.84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-106	9 - 19	26.33	--	--	--	--	--	--	--	--	NM- Flooded	--	--	--	--	--	--	--
MW-107	2 - 12	14.63	4.74	9.89	--	--	4.42	10.21	--	--		4.48	10.15	--	--	--	--	--
MW-108	2 - 12	12.74	3.95	8.79	--	--	3.86	8.88	--	--		4.05	8.69	--	--	--	--	--
MW-109	3 - 13	24.12	10.62	13.5	--	--	10.41	13.71	--	--	11.31	12.81	--	--	--	--	--	--
MW-110	3 - 13	15.58	--	--	--	--	--	--	--	--	1.99	13.59	--	--	--	--	--	--
MW-111	4 - 14	18.95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-112	3 - 10	18.16	5.05	13.11	--	--	6.75	11.41	--	--	8.06	10.1	--	--	--	--	--	--
MW-112a	4 - 19	17.78	12.3	5.48	13.00	4.78	12.75	5.03	13.08	4.70	13.05	4.73	12.80	4.98	12.55	5.23	12.81	4.97
MW-113	10 - 20	26.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-114	7 - 17	29.43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-115	10 - 25	27.15	16.96	10.19	--	--	17.89	9.26	--	--	19.4	7.75	--	--	--	--	--	--
MW-116	5 - 15	13.45	8.35	5.1	--	--	9.17	4.28	--	--	9.51	3.94	--	--	9	4.45	--	--
MW-117S	5 - 20	21.94	9.19	12.75	--	--	12.69	9.25	--	--	13.51	8.43	--	--	12.8	9.14	--	--
MW-117T	35 - 45	21.87	14.46	7.41	--	--	16.06	5.81	--	--	16.35	5.52	--	--	16	5.87	--	--
MW-117D	60 - 70	21.78	11.76	10.02	--	--	10.11	11.67	--	--	16.31	5.47	--	--	15.6	6.18	--	--
MW-118S	3 - 14	15.52	9.84	5.68	--	--	8.85	6.67	--	--	8.95	6.57	--	--	9.1	6.42	--	--
MW-118T	39.5 - 49.5	15.30	9.52	5.78	--	--	10.24	5.06	--	--	10.77	4.53	--	--	10.6	4.7	--	--
MW-118D	70 - 80	15.15	9.31	5.84	10.49	4.66	10.09	5.06	10.65	4.5	10.59	4.56	10.55	4.6	10.2	4.95	10.97	4.18
MW-119S	5 - 20	11.74	4.05	7.69	--	--	3.49	8.25	--	--	4.20	7.54	--	--	4.05	7.69	--	--
MW-119T	42 - 47	11.67	5.86	5.81	--	--	6.20	5.47	--	--	6.85	4.82	--	--	6.7	4.97	--	--
MW-120S	5 - 20	12.54	3.85	8.69	--	--	3.35	9.19	--	--	4.30	8.24	--	--	5	7.54	--	--
MW-120D	28 - 38	12.45	3.21	9.24	--	--	3.93	8.52	--	--	3.81	8.64	--	--	4.5	7.95	--	--
MW-121S	5 - 20	12.44	6.8	5.64	--	--	7.72	4.72	--	--	7.73	4.71	--	--	8	4.44	--	--
MW-121D	32 - 47	12.81	6.94	5.87	7.66	5.15	7.40	5.41	8	4.81	8.05	4.76	8.15	4.66	7.7	5.11	8.40	4.41
MW-122	4 - 16	16.42	12.81	3.61	13.15	3.27	13.01	3.41	13.11	3.31	13.02	3.4	13.1	3.32	12.9	3.52	13.15	3.27
GEO-1	5 - 20	25.88	11.1	14.78	--	--	10.40	15.48	--	--	11.01	14.87	--	--	10.85	15.03	--	--
GEO-2	5 - 20	26.54	12.98	13.56	--	--	11.11	15.43	--	--	12.26	14.28	--	--	12.2	14.34	--	--
GEO-3	5 - 20	25.64	11.06	14.58	--	--	10.36	15.28	--	--	ND-Bott at 11.15	--	--	--	--	--	--	--
GEO-4	4 - 19	21.69	10.72	10.97	--	--	11.41	10.28	--	--		12.41	9.28	--	--	--	--	--
GEO-5	5 - 20	20.14	7.55	12.59	--	--	11.32	8.82	--	--		12.26	7.88	--	--	--	--	--
GEO-6	5 - 20	17.62	8.23	9.39	--	--	11.62	6	--	--	12.21	5.41	--	--	--	--	--	--
SH-1	9 - 14	29.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-2	7 - 14	29.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-3	8 - 13	29.66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-4	11 - 16	29.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-5	8 - 13	29.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW1	10 - 30	24.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW2	10 - 25	24.27	12.55	11.72	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW2R	10 - 23	24.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SH-MW3	10 - 24	22.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW201	11 - 21	27.51	12.92	14.59	--	--	12.00	15.51	--	--	12.69	14.82	--	--	--	--	--	--
MW202	10.5 - 20.5	27.82	13.3	14.52	--	--	12.31	15.51	--	--	12.99	14.83	--	--	12.9	14.92	--	--
MW203	6 - 18	21.80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW203R	13 - 23	24.97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

- General Notes:
- ft = feet.
 - bgs = below ground surface.
 - ID = identification.
 - GW = groundwater.
 - NAVD = North American Vertical Datum of 1988.
 - The top of the PVC riser was used as the measuring point for depth to groundwater.
 - "--" = Well not yet installed, abandoned, or not measured.
 - NM = Not measured.

Table 9-1. Groundwater Elevations
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

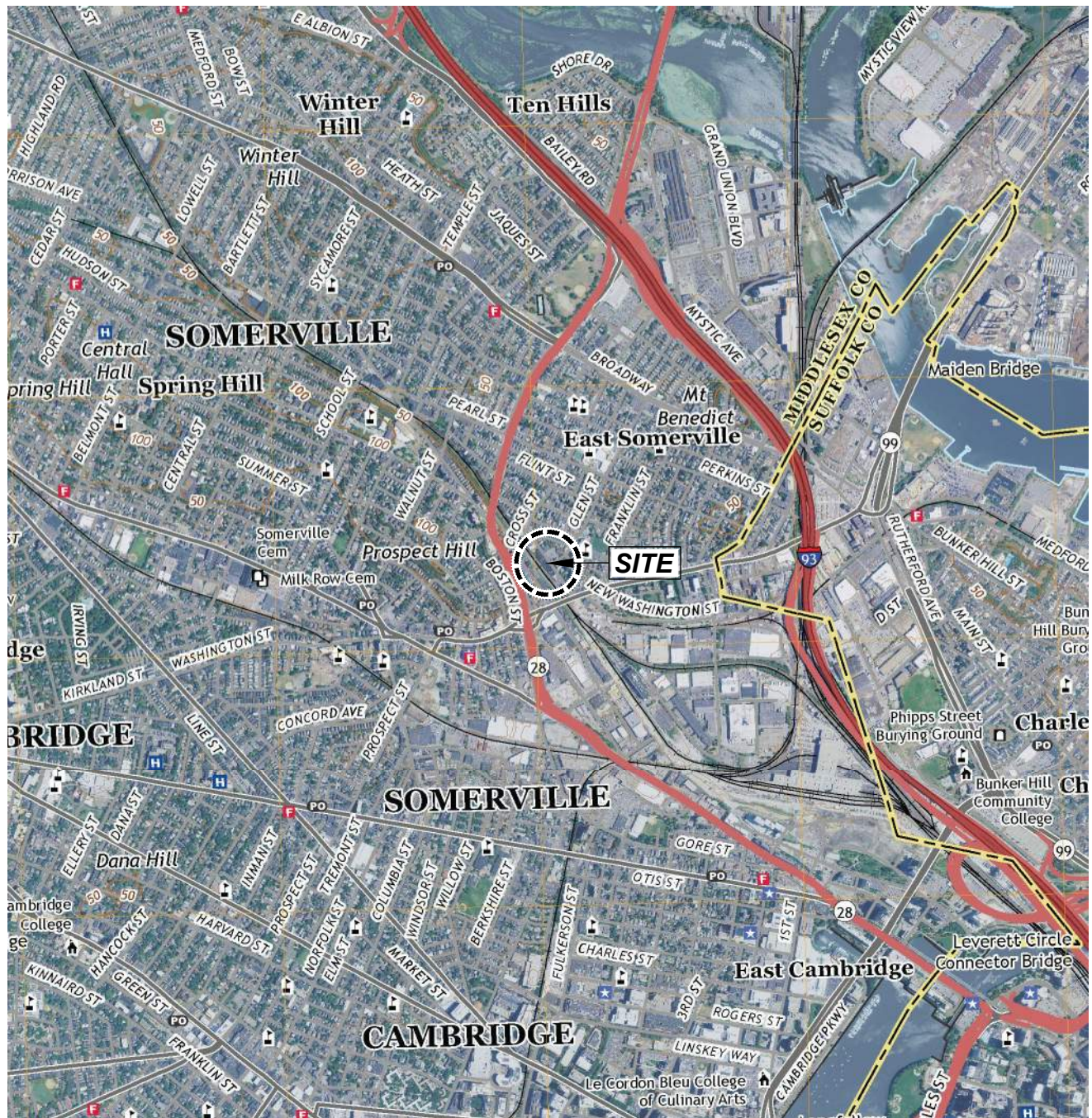
		Gauging Date:	4/17/23		11/7/23		4/1/24	
Monitoring Well ID	Well Screen Interval (ft bgs)	Elevation of Measuring Point (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)	Depth to GW (ft)	Elevation of GW (ft NAVD)
MW-1	unknown	25.90	--	--	--	--	--	--
MW-2	unknown	25.38	--	--	--	--	--	--
MW-3	unknown	25.31	--	--	--	--	--	--
MW-101	9 - 19	26.75	--	--	--	--	--	--
MW-102	6 - 16	18.89	8.18	10.71	--	--	6.91	11.98
MW-103	6 - 16	19.47	--	--	--	--	10.49	8.98
MW-104	5 - 15	17.67	--	--	--	--	--	--
MW-104R	5 - 15	15.82	--	--	--	--	15.8	0.02
MW-105	19 - 29	38.84	--	--	--	--	--	--
MW-106	9 - 19	26.33	--	--	--	--	10.45	15.88
MW-107	2 - 12	14.63	4.43	10.2	--	--	4.34	10.29
MW-108	2 - 12	12.74	4.34	8.4	--	--	3.52	9.22
MW-109	3 - 13	24.12	11.49	12.63	--	--	9.75	14.37
MW-110	3 - 13	15.58	2.5	13.08	--	--	0.81	14.77
MW-111	4 - 14	18.95	--	--	--	--	--	--
MW-112	3 - 10	18.16	--	--	--	--	--	--
MW-112a	4 - 19	17.78	12.67	5.11	12.64	5.14	12.64	5.14
MW-113	10 - 20	26.16	--	--	--	--	--	--
MW-114	7 - 17	29.43	--	--	--	--	--	--
MW-115	10 - 25	27.15	19.61	7.54	--	--	18.12	9.03
MW-116	5 - 15	13.45	9.03	4.42	--	--	--	--
MW-117S	5 - 20	21.94	11.19	10.75	--	--	11.62	10.32
MW-117T	35 - 45	21.87	16.1	5.77	--	--	15.09	6.78
MW-117D	60 - 70	21.78	16.07	5.71	--	--	11.61	10.17
MW-118S	3 - 14	15.52	9.17	6.35	--	--	8.01	7.51
MW-118T	39.5 - 49.5	15.30	10.6	4.7	--	--	9.91	5.39
MW-118D	70 - 80	15.15	10.5	4.65	10.62	4.53	9.75	5.4
MW-119S	5 - 20	11.74	5.1	6.64	--	--	4.07	7.67
MW-119T	42 - 47	11.67	6.73	4.94	--	--	5.98	5.69
MW-120S	5 - 20	12.54	4.31	8.23	--	--	3.42	9.12
MW-120D	28 - 38	12.45	3.81	8.64	--	--	3.06	9.39
MW-121S	5 - 20	12.44	7.58	4.86	--	--	4.07	8.37
MW-121D	32 - 47	12.81	8.05	4.76	NM	NM	7.17	NM
MW-122	4 - 16	16.42	13.1	3.32	13.12	3.3	13.02	3.4
GEO-1	5 - 20	25.88	11.16	14.72	--	--	9.91	15.97
GEO-2	5 - 20	26.54	12.1	14.44	--	--	10.6	15.94
GEO-3	5 - 20	25.64	--	--	--	--	--	--
GEO-4	4 - 19	21.69	12.83	8.86	--	--	10.71	10.98
GEO-5	5 - 20	20.14	12.79	7.35	--	--	10.44	9.7
GEO-6	5 - 20	17.62	12.75	4.87	--	--	10.75	6.87
SH-1	9 - 14	29.55	--	--	--	--	--	--
SH-2	7 - 14	29.64	--	--	--	--	--	--
SH-3	8 - 13	29.66	--	--	--	--	--	--
SH-4	11 - 16	29.63	--	--	--	--	--	--
SH-5	8 - 13	29.63	--	--	--	--	--	--
SH-MW1	10 - 30	24.02	--	--	--	--	--	--
SH-MW2	10 - 25	24.27	--	--	--	--	--	--
SH-MW2R	10 - 23	24.56	--	--	--	--	13.54	11.02
SH-MW3	10 - 24	22.31	--	--	--	--	--	--
MW201	11 - 21	27.51	13.84	13.67	--	--	11.62	15.89
MW202	10.5 - 20.5	27.82	13.2	14.62	--	--	12.11	15.71
MW203	6 - 18	21.80	--	--	--	--	--	--
MW203R	13 - 23	24.97	--	--	--	--	19.15	5.82

- General Notes:
- ft = feet.
 - bgs = below ground surface.
 - ID = identification.
 - GW = groundwater.
 - NAVD = North American Vertical Datum of 1988.
 - The top of the PVC riser was used as the measuring point for depth to groundwater.
 - "--" = Well not yet installed, abandoned, or not measured.
 - NM = Not measured.

Table 10-1. Chemical Testing Results - 50 Tufts Street Shallow Soil
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
50 Tufts Street
Somerville, Massachusetts

Sample ID: Sample Date: Sample Depth (ft):			50TUFT-B101(0-1) 2/12/2024 0-1	50TUFT-B101(1-3) 2/12/2024 1-3	50TUFT-B101(3-5) 2/12/2024 3-5	50TUFT-B102(0-1) 2/12/2024 0-1	50TUFT-B102(1-3) 2/12/2024 1-3	50TUFT-B103(0-1) 2/12/2024 0-1	50TUFT-B103(1-3) 2/12/2024 1-3	50TUFT-B103(3-5) 2/12/2024 3-5	50TUFT-B104(0-1) 2/12/2024 0-1	50TUFT-B104(1-3) 2/12/2024 1-3	50TUFT-B104(3-5) 2/12/2024 3-5	50TUFT-B105(0-1) 2/12/2024 0-1	50TUFT-B105(1-3) 2/12/2024 1-3
Analyte	MCP Upper Concentration Limit (UCL)	Units													
Volatile Organics Compounds (VOCs)			mg/kg												
1,2-Dichloroethene, Total			<0.00074	<0.00066	<0.00051	<0.00064	<0.00058	0.094	<0.061	<0.00063	<0.00057	<0.00067	<0.00088	<0.044	<0.0012
cis-1,2-Dichloroethene	5000		<0.00074	<0.00066	<0.00051	<0.00064	<0.00058	0.094	<0.061	<0.00063	<0.00057	<0.00067	<0.00088	<0.044	<0.0012
Tetrachloroethene	10000		0.0023	<0.00033	0.015	0.00048	0.001	100	2.8	0.00052	0.023	0.015	0.0024	0.81	0.01
Toluene	10000		<0.00074	<0.00066	<0.00051	<0.00064	<0.00058	<0.046	<0.061	<0.00063	<0.00057	<0.00067	<0.00088	0.053	<0.0012
Trichloroethene	600		<0.00037	<0.00033	<0.00026	<0.00032	0.00037	0.24	<0.031	<0.00032	<0.00029	<0.00033	<0.00044	<0.022	<0.00061
General Chemistry															
Solids, Total		%	80	89.7	91.1	93.6	91.6	90.1	81.4	85.7	90.8	79.6	82.3	92.1	82.8

Figures



This Image is from U.S.G.S. Topographic 7.5 Minute Series
 Boston North, MA Quadrangle, 2018.
 Datum is North American Vertical Datum of 1988 (NAVD88).
 Contour Interval is 10 Feet.



Phase V Status Report No. 26 and
 Remedial Monitoring Report No. 41
 50 Tufts Street Somerville, Massachusetts

UniFirst Corporation
 Wilmington, Massachusetts

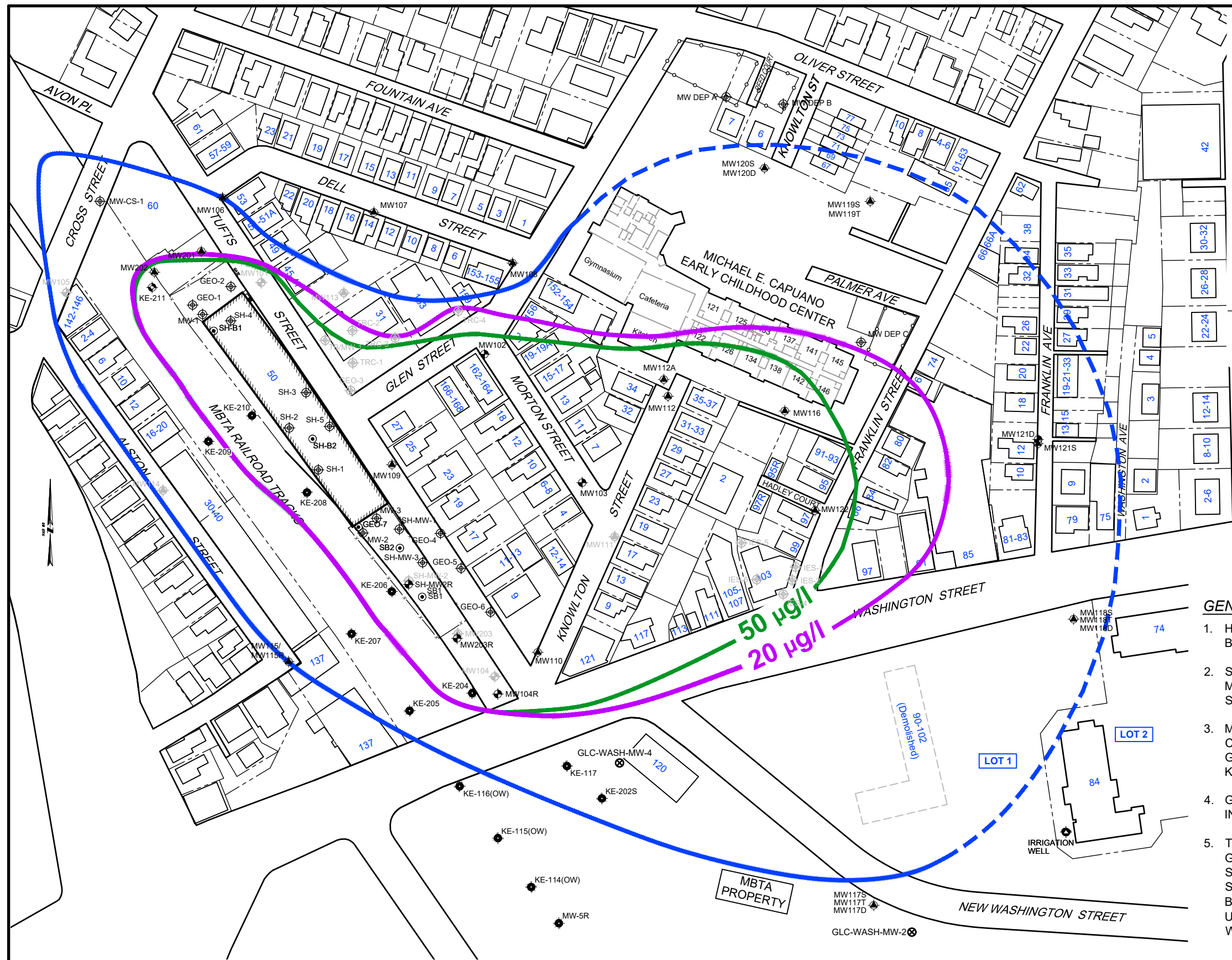


Project 04516-3

SITE LOCATION MAP

August 2024

Fig. 1



LEGEND:

- ⊕ MONITORING WELL INSTALLED BY TRC, 2014
- ⊙ BORING BY KLEINFELDER, MARCH 2014 AND APRIL 2014
- ⦿ MONITORING WELL BY KLEINFELDER, SEPTEMBER 2012, MARCH 2014, AND APRIL 2014
- ⦿ MONITORING WELL WITH SOIL VAPOR SAMPLE PORT INSTALLED BY GEI, JANUARY 2007 - JANUARY 2008
- ⦿ MONITORING WELL INSTALLED BY GEI, MAY 2006
- ⦿ PREVIOUSLY INSTALLED IRRIGATION WELL
- ⊗ GLXC WELL INSTALLED AUGUST 2020
- ⦿ WELLS IN GRAY HAVE BEEN DESTROYED OR DECOMMISSIONED
- CHAIN LINK FENCE
- 138 ROOM NUMBER AT CAPUANO SCHOOL
- BOUNDARY OF COMMUNITY GARDENS
- 84 STREET ADDRESS
- MBTA = MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
- DISPOSAL SITE BOUNDARY (DASHED WHERE INFERRED)
- EXTENT OF PCE CONCENTRATION IN SHALLOW GROUNDWATER GREATER THAN OR EQUAL TO 20 µg/l
- EXTENT OF PCE CONCENTRATION IN SHALLOW GROUNDWATER GREATER THAN OR EQUAL TO 50 µg/l
- µg/l = MICROGRAMS PER LITER

- GENERAL NOTES:**
- HORIZONTAL CONTROL FOR THIS PLAN WAS ESTABLISHED BY GPS AND IS BASED ON THE NORTH AMERICAN DATUM OF 1983.
 - STREET AND PROPERTY LINES BASED ON SOMERVILLE ASSESSORS' MAPS AND ARE BEST FIT RELATIVE TO THE LOCATION OF THE 50 TUFTS ST. BUILDING.
 - MONITORING WELL LOCATIONS AND ELEVATIONS, AND CAPUANO CENTER COMMUNITY GARDEN LOCATIONS WERE ESTABLISHED BY ON THE GROUND SURVEYS BY BSC GROUP, INC. OR INFORMATION PROVIDED BY KLEINFELDER.
 - GEI OBSERVED DECOMMISSIONING OF SH-MW1 AND SH-1 THROUGH SH-5 IN 2007.
 - THE 20 µg/l AND 50 µg/l BOUNDARY LINES ARE BASED ON SHALLOW GROUNDWATER ANALYTICAL RESULTS (0 TO 15 FEET BELOW GROUND SURFACE) COLLECTED THROUGH NOVEMBER 2022. KE-204 IS A WELL SCREENED GREATER THAN 15 FEET BELOW GROUND SURFACE, BUT HAS BEEN INCLUDED IN THE 20 µg/l AND 50 µg/l BOUNDARY LINES BECAUSE OF UNCERTAINTY ON THE SHALLOW GROUNDWATER CONCENTRATIONS WITHIN THE IMMEDIATE VICINITY OF THIS WELL.

Phase V Status Report No. 26 and Remedial Monitoring Report No. 41 50 Tufts Street Somerville, Massachusetts			DISPOSAL SITE MAP AND SITE BOUNDARY	
UniFirst Corporation Wilmington, Massachusetts			Project 04516-3	August 2024
				Fig. 1-2



LEGEND

PCE CONCENTRATIONS

- Not Detected
- Less than RCS-1
- Greater than RCS-1 (1 mg/kg)(Detected concentration presented in mg/kg)

DISPOSAL SITE BOUNDARY

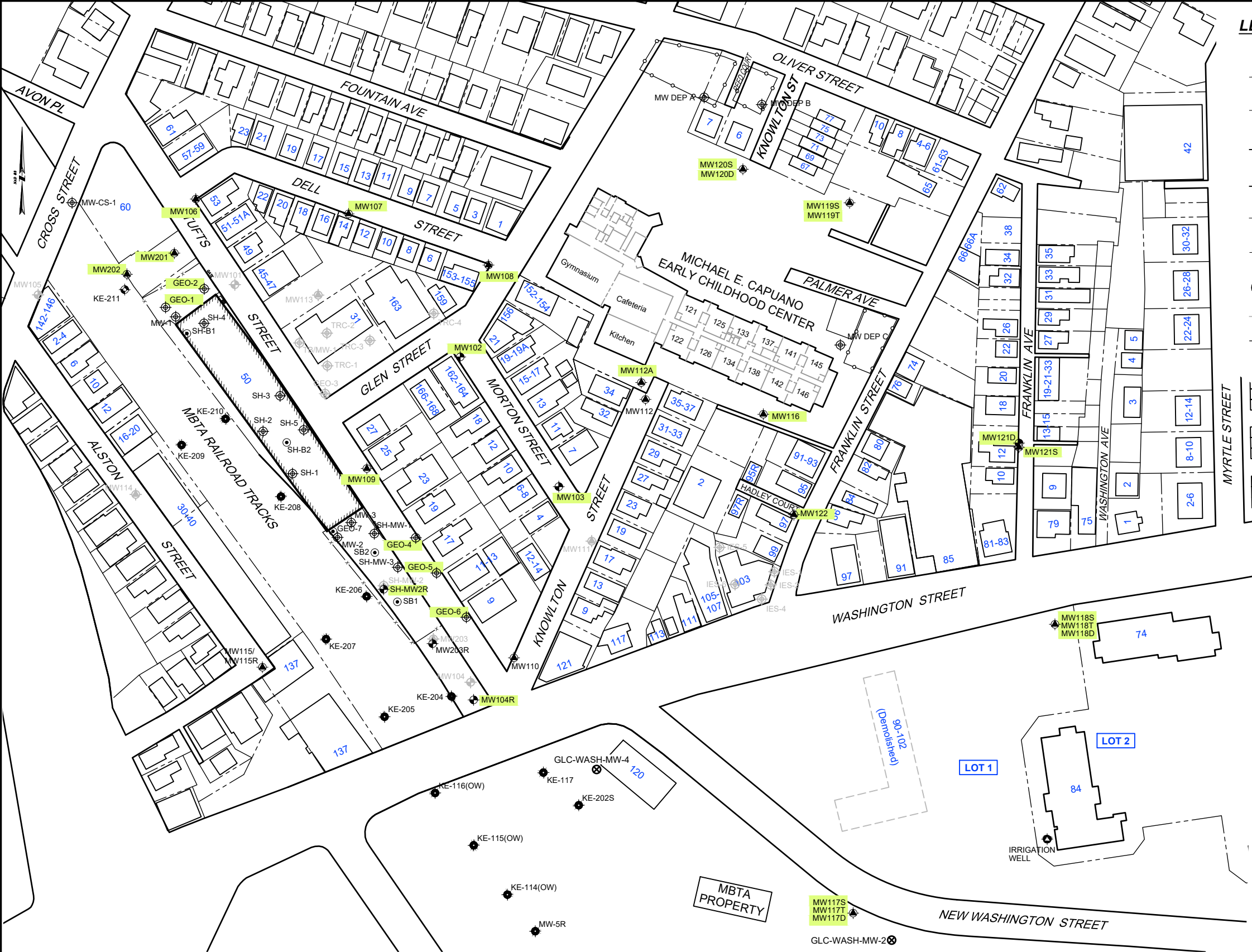
-

NOTES

1. Historic soil characterization samples reportedly collected between 2010 and 2014 by Vanasse Hangen Brustlin, Inc., Nobis Group, and Kleinfelder, Inc. Source: Green Line Extension Project Release Abatement Measure (RAM) Plan Historic Fill and Soil Impacted by Railroad Operations - Special Project Designation, dated February 2015 (Kleinfelder).

2. More recent soil characterization samples collected between 2018 and 2020 by TRC Companies, Inc.

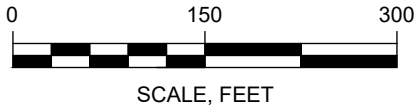
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41 50 Tufts Street Somerville, Massachusetts		KLEINFELDER SOIL DATA AND GLX PROJECT PRE- CHARACTERIZATION SAMPLES	
UniFirst Corporation Wilmington, Massachusetts		Project 04516-3	August 2024 Fig. 2-1



LEGEND:

- MONITORING WELL INSTALLED BY TRC, 2014
- BORING BY KLEINFELDER, MARCH 2014 AND APRIL 2014
- MONITORING WELL BY KLEINFELDER, SEPTEMBER 2012, MARCH 2014, AND APRIL 2014
- MONITORING WELL WITH SOIL VAPOR SAMPLE PORT INSTALLED BY GEI, JANUARY 2007 - JANUARY 2008
- MONITORING WELL INSTALLED BY GEI, MAY 2006
- MONITORING WELL INSTALLED BY OTHERS
- PREVIOUSLY INSTALLED IRRIGATION WELL
- GLXC WELL INSTALLED AUGUST 2020
- WELLS IN GRAY HAVE BEEN DESTROYED OR DECOMMISSIONED
- CHAIN LINK FENCE
- ROOM NUMBER AT CAPUANO SCHOOL
- BOUNDARY OF COMMUNITY GARDENS
- STREET ADDRESS
- MBTA = MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
- MONITORING WELL SAMPLED BY GEI DURING THIS REPORTING PERIOD

- GENERAL NOTES:**
 - MONITORING WELL LOCATIONS AND ELEVATIONS, AND CAPUANO CENTER COMMUNITY GARDEN LOCATIONS WERE ESTABLISHED BY ON THE GROUND SURVEYS BY BSC GROUP, INC.
 - HORIZONTAL CONTROL FOR THIS PLAN WAS ESTABLISHED BY GPS AND IS BASED ON THE NORTH AMERICAN DATUM OF 1983.
 - VERTICAL CONTROL FOR THIS PLAN WAS ESTABLISHED BY GPS AND IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988.
 - STREET PROPERTY LINES, AND BUILDINGS ARE BASED ON SOMERVILLE ASSESSORS MAPS AND ARE BEST FIT RELATIVE TO THE LOCATION OF THE 50 TUFTS ST. BUILDING.
 - GEI OBSERVED ABANDONMENT OF SH-MW1 AND SH-1 THROUGH SH-5 IN 2007.



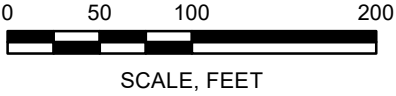
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41 50 Tufts Street Somerville, Massachusetts UniFirst Corporation Wilmington, Massachusetts		MONITORING WELL LOCATIONS	
		Project 04516-3	August 2024

Fig. 4-1



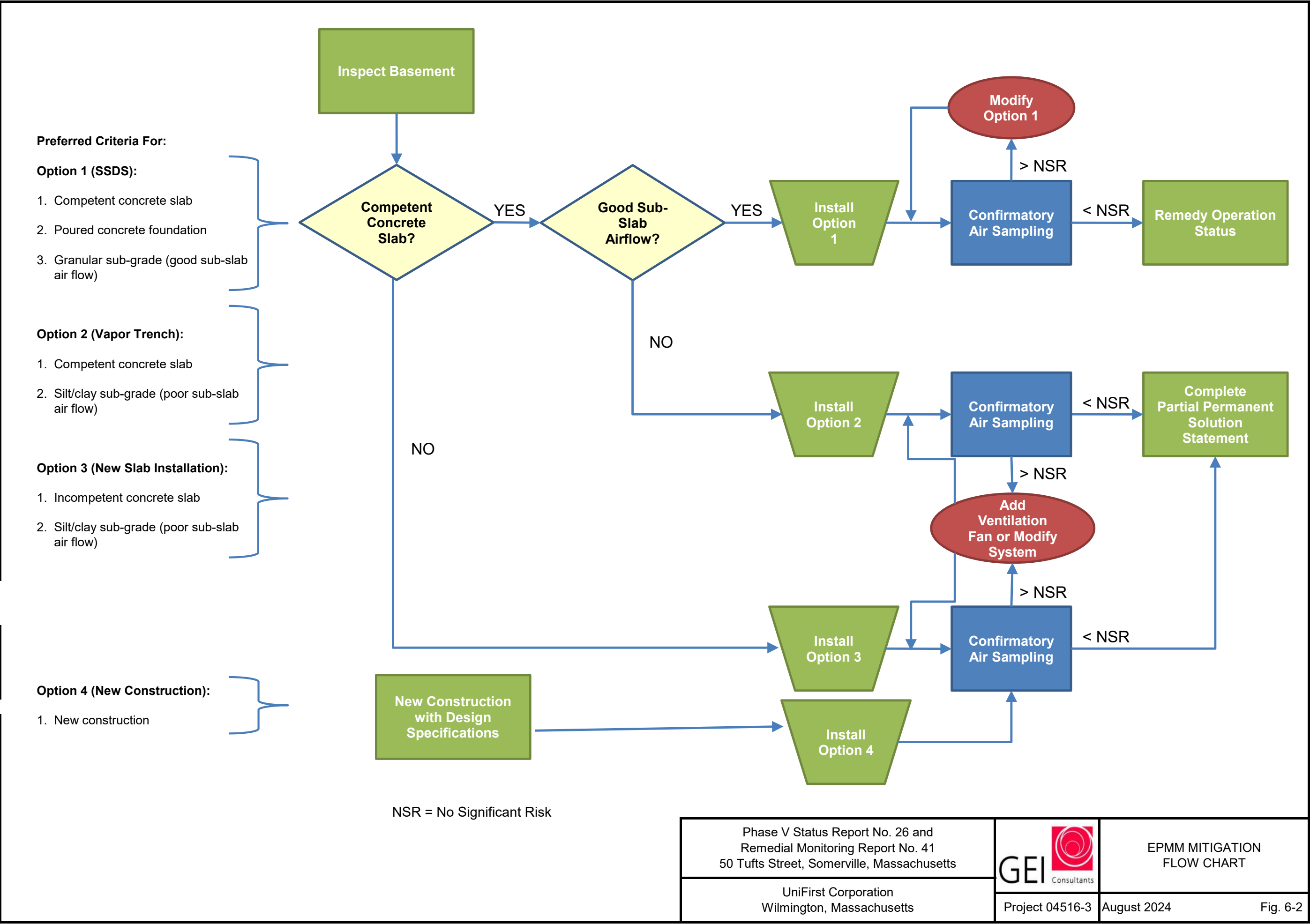


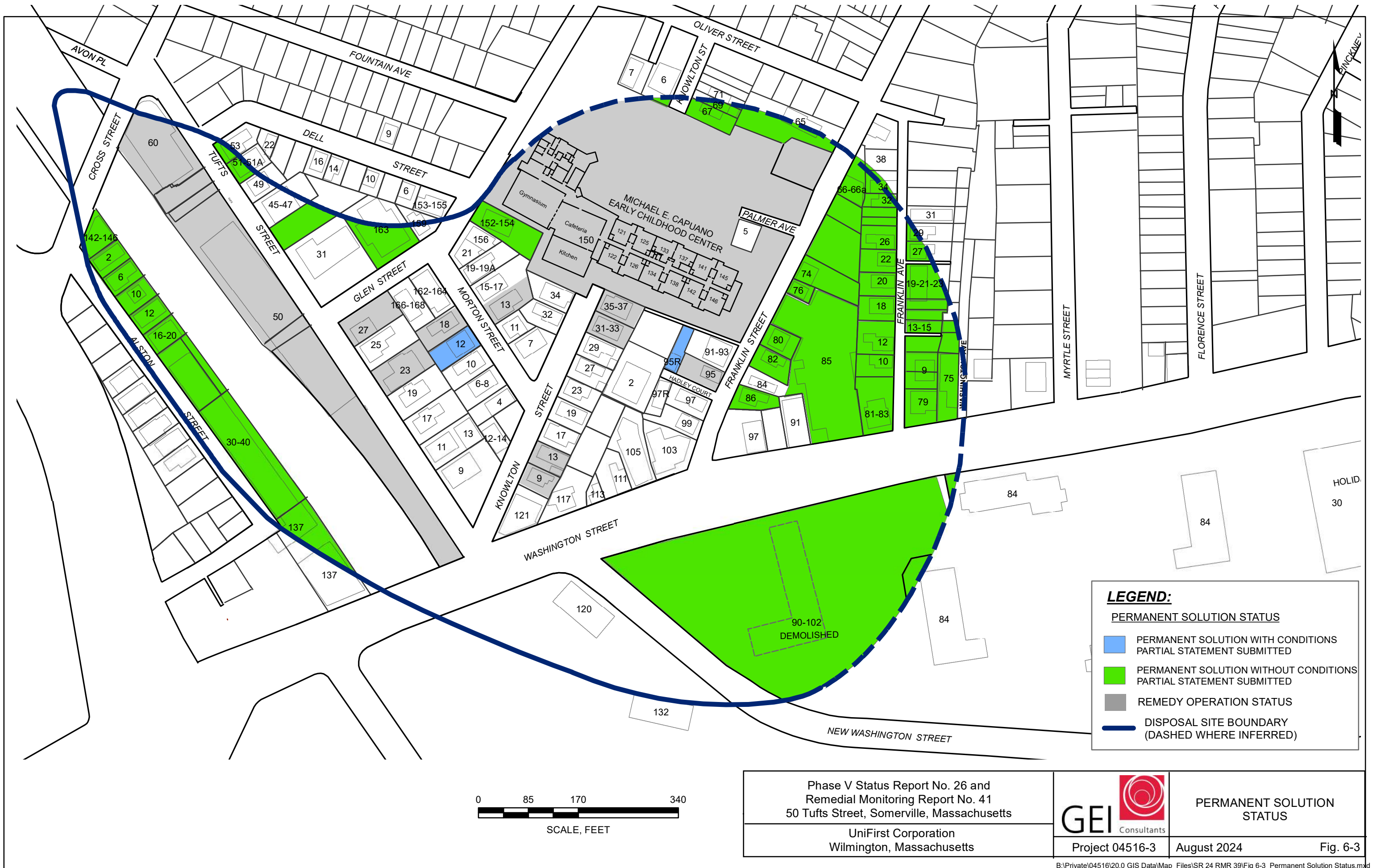
Notes:
1. EPMMs demonstrated to be no longer required based on testing requirements in the MassDEP Vapor Intrusion Guidance: Site Assessment, Mitigation and Closure, Policy #WSC-16-435 (Section 3.7 and Tables 3-1 and 3-2).

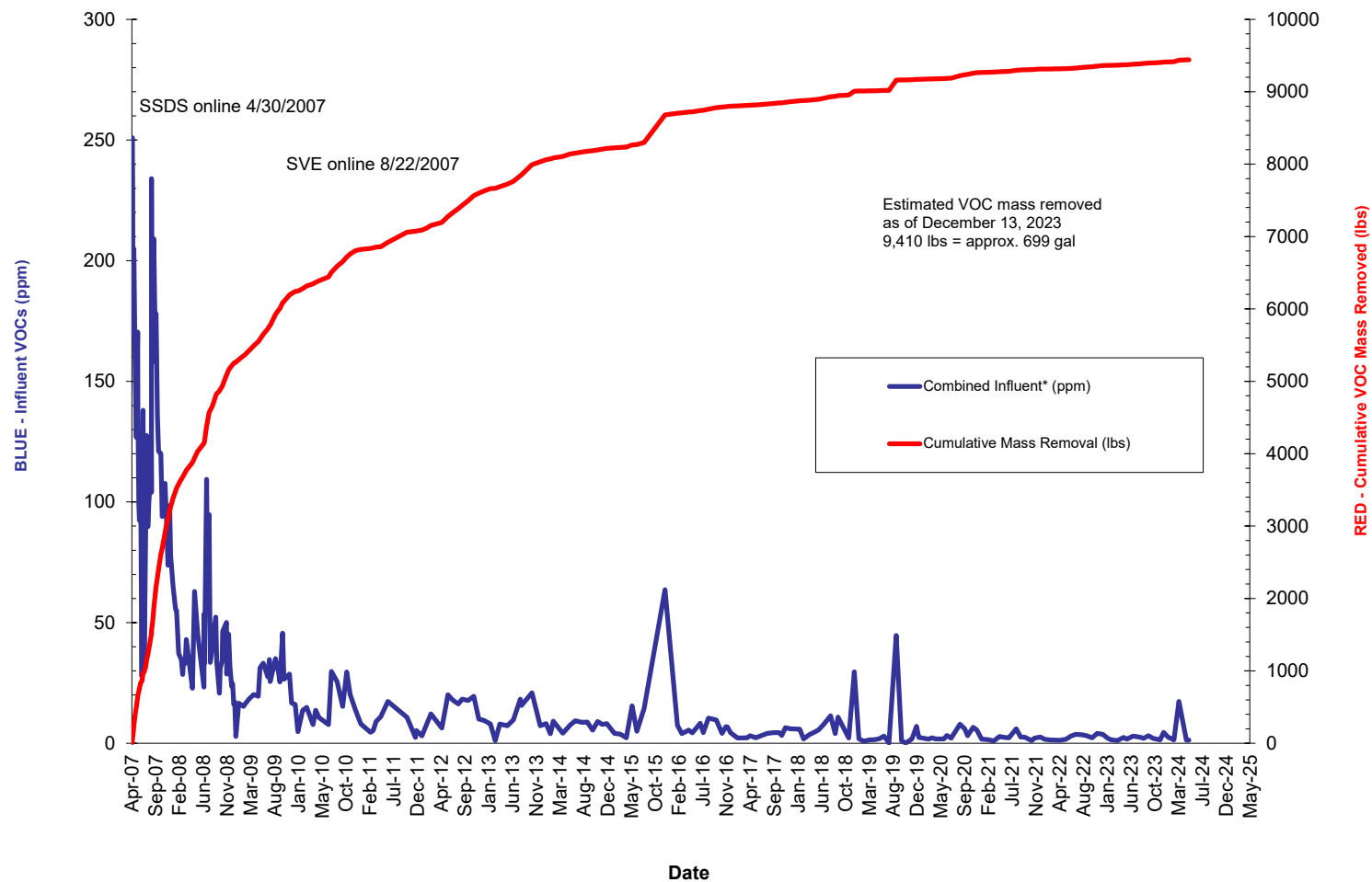


Phase V Status Report No. 26 and Remedial Monitoring Report No. 41 50 Tufts Street, Somerville, Massachusetts		EPMM INSTALLATION PROGRESS	
		Project 04516-3	August 2024

Fig. 6-1







General Notes:

lbs = pounds.

PCE = tetrachloroethylene (perchloroethylene).

ppm = parts per million.

SSDS = sub-slab depressurization system.

SVE = soil vapor extraction system.

VOC = volatile organic compound.

*Influent concentrations measured by a photoionization detector (PID).

Phase V Status Report No. 26 and
Remedial Monitoring Report No. 41
50 Tufts Street, Somerville, Massachusetts

UniFirst Corporation
Wilmington, Massachusetts

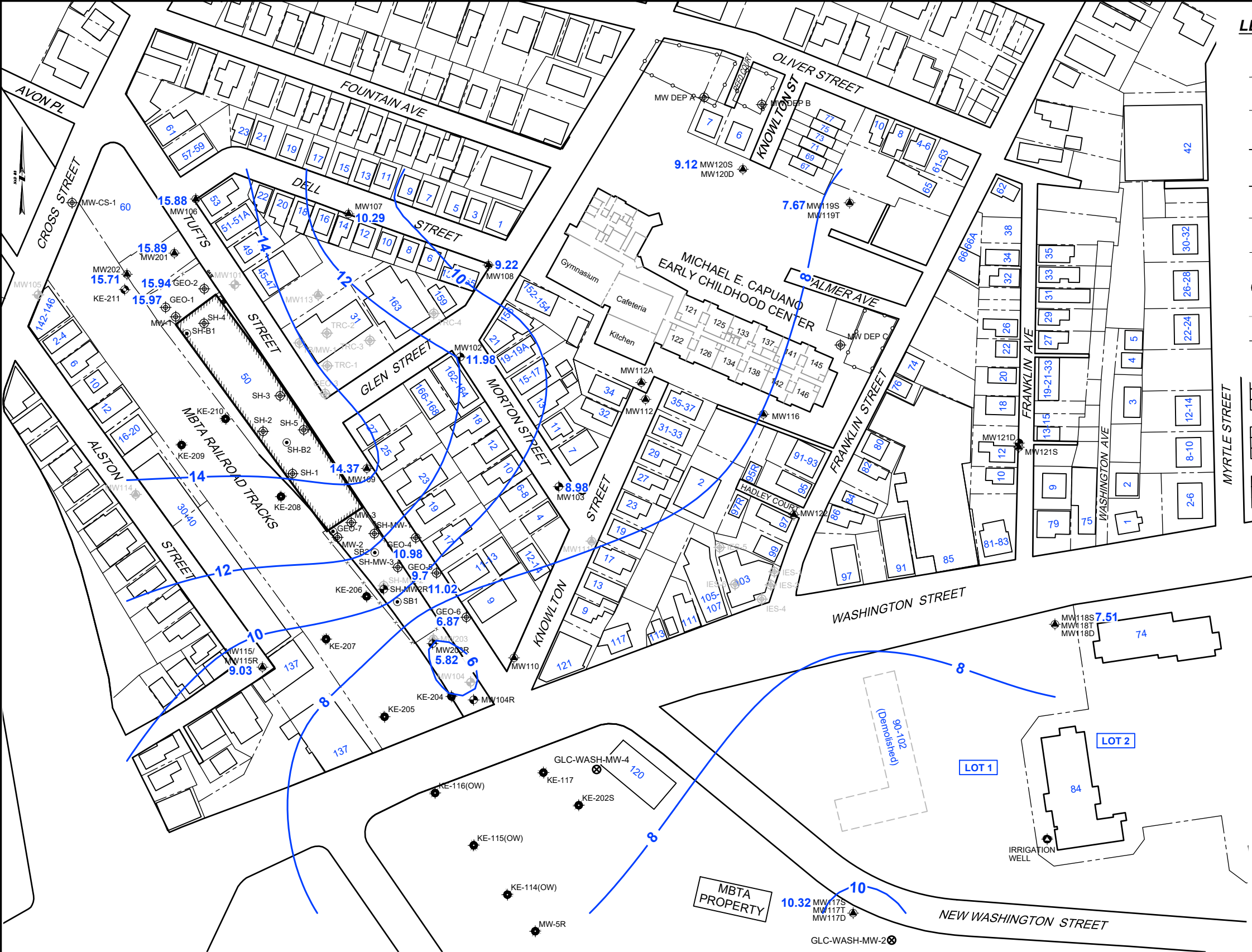


COMBINED INFLUENT VOC
CONCENTRATIONS AND
CUMULATIVE VOC REMOVAL

Project 04516-3

August 2024

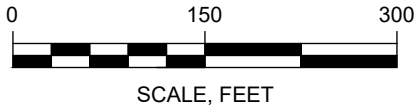
Fig. 8-1



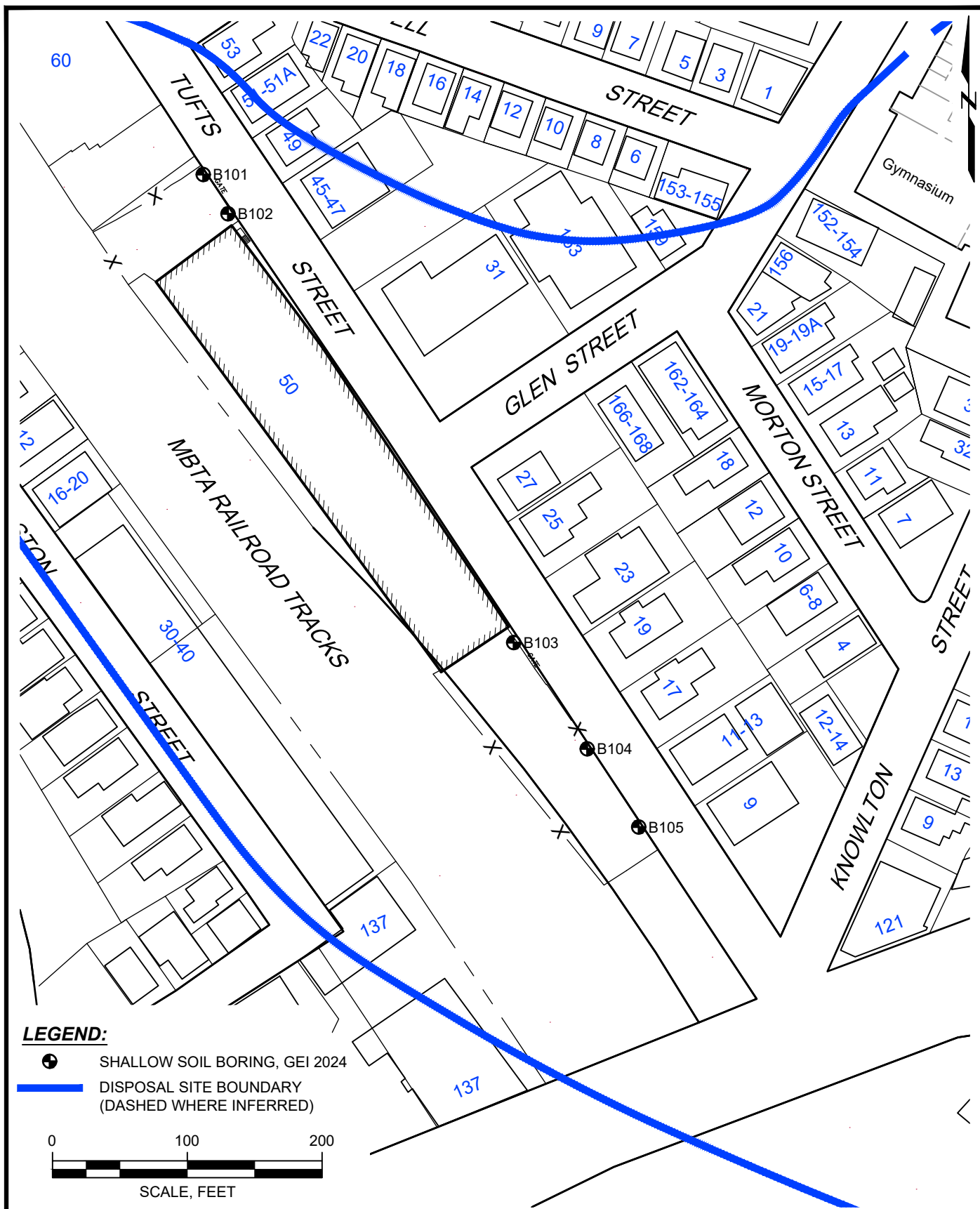
LEGEND:

- MONITORING WELL INSTALLED BY TRC, 2014
- BORING BY KLEINFELDER, MARCH 2014 AND APRIL 2014
- MONITORING WELL BY KLEINFELDER, SEPTEMBER 2012, MARCH 2014, AND APRIL 2014
- MONITORING WELL WITH SOIL VAPOR SAMPLE PORT INSTALLED BY GEI, JANUARY 2007 - JANUARY 2008
- MONITORING WELL INSTALLED BY GEI, MAY 2006
- MONITORING WELL INSTALLED BY OTHERS
- PREVIOUSLY INSTALLED IRRIGATION WELL
- GLXC WELL INSTALLED AUGUST 2020
- WELLS IN GRAY HAVE BEEN DESTROYED OR DECOMMISSIONED
- CHAIN LINK FENCE
- 138 ROOM NUMBER AT CAPUANO SCHOOL
- BOUNDARY OF COMMUNITY GARDENS
- 84 STREET ADDRESS
- MBTA = MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
- 9.03 GROUNDWATER ELEVATION MEASURED 4/01/2024 (DATUM NAVD88)
- 8 GROUNDWATER ELEVATION CONTOUR, FEET

- GENERAL NOTES:**
- MONITORING WELL LOCATIONS AND ELEVATIONS, AND CAPUANO CENTER COMMUNITY GARDEN LOCATIONS WERE ESTABLISHED BY ON THE GROUND SURVEYS BY BSC GROUP, INC.
 - HORIZONTAL CONTROL FOR THIS PLAN WAS ESTABLISHED BY GPS AND IS BASED ON THE NORTH AMERICAN DATUM OF 1983.
 - VERTICAL CONTROL FOR THIS PLAN WAS ESTABLISHED BY GPS AND IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988.
 - STREET PROPERTY LINES, AND BUILDINGS ARE BASED ON SOMERVILLE ASSESSORS MAPS AND ARE BEST FIT RELATIVE TO THE LOCATION OF THE 50 TUFTS ST. BUILDING.
 - GEI OBSERVED ABANDONMENT OF SH-MW1 AND SH-1 THROUGH SH-5 IN 2007.



Phase V Status Report No. 26 and Remedial Monitoring Report No. 41 50 Tufts Street Somerville, Massachusetts UniFirst Corporation Wilmington, Massachusetts		GROUNDWATER ELEVATION CONTOUR PLAN (April 2024)	
		Project 04516-3	August 2024 Fig. 9-1



Phase V Status Report No. 26 and RMR No. 41
50 Tufts Street
Somerville, Massachusetts

Wooden Teeth LLC
Wilmington, Massachusetts



Project 045163

50 TUFTS STREET
SHALLOW SOIL BORING PLAN

August 2024

Fig. 10-1

Appendix A MassDEP Transmittal Forms (BWSC-108, BWSC-108As, and BWSC-108Bs)

Comprehensive Response Action Transmittal Forms:

- **BWSC-108A 1 of 5 (50 Tufts SSDS)**
- **BWSC-108B 1 of 5 (50 Tufts SSDS)**
- **BWSC-108A 2 of 5 (50 Tufts SVE)**
- **BWSC-108B 2 of 5 (50 Tufts SVE)**
- **BWSC-108A 3 of 5 (Capuano Center)**
- **BWSC-108B 3 of 5 (Capuano Center)**
- **BWSC-108A 4 of 5 (Residences)**
- **BWSC-108A 5 of 5 (MNA)**

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Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC 108

**COMPREHENSIVE RESPONSE ACTION TRANSMITTAL
FORM & PHASE I COMPLETION STATEMENT**

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

Release Tracking Number

3

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23246

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Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC 108

**COMPREHENSIVE RESPONSE ACTION TRANSMITTAL
FORM & PHASE I COMPLETION STATEMENT**

Release Tracking Number

3

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Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

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Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC 108

**COMPREHENSIVE RESPONSE ACTION TRANSMITTAL
FORM & PHASE I COMPLETION STATEMENT**

Release Tracking Number

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Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

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Bureau of Waste Site Cleanup

BWSC 108

**COMPREHENSIVE RESPONSE ACTION TRANSMITTAL
FORM & PHASE I COMPLETION STATEMENT**

Release Tracking Number

3

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23246

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

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Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

CRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0800 (SUBPART H)

Remedial System or Monitoring Program:

1

of:

5

BWSC108 -A

Release Tracking Number

3

-

23246

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Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

CRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0800 (SUBPART H)

Remedial System or Monitoring Program:

1

of:

5

BWSC108 -A

Release Tracking Number

3

-

23246

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Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup
CRA REMEDIAL MONITORING REPORT
MEASUREMENTS

BWSC108 -B

Pursuant to 310 CMR 40.0800 (SUBPART H)

Remedial System or Monitoring Program:

1

of: 5

Release Tracking Number

3

23246

For each Point of Measurement, related to concentration indicate the highest concentration detected during the reporting period, of each oil, hazardous material and/or remedial additive.

For each Point of Measurement for pressure differentials, indicate the lowest pressure differential detected during the reporting period.

Point of Measurement	Date (mm/dd/yyyy)	Contaminant, Measurement and/or Indicator Parameter	Influent Concentration (where applicable)	Midpoint Concentration (where applicable)	(check one)	Check here, if ND/BDL	Permissible Concentration or Pressure Differential	Units	Within Permissible Limits? (Y/N)
					☒ Discharge ☐ GroundWater Concentration Pressure Differential				
SSDS	01/08/2024	TOTAL VOCS	2.6		0.0	☒	0.13	PPMV	YES
SSDS	02/12/2024	TOTAL VOCS	1.4		0.0	☒	0.07	PPMV	YES
SSDS	03/12/2024	TOTAL VOCS	17.3		0.0	☒	0.865	PPMV	YES
SSDS	04/25/2024	TOTAL VOCS	1.3		0.0	☒	0.065	PPMV	YES
SSDS	05/10/2024	TOTAL VOCS	1.3		0.0	☒	0.065	PPMV	YES

☐ Check here if any additional BWSC108 B, Measurements Form(s), are needed.

DRAFT COPY

DRAFT COPY



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

CRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0800 (SUBPART H)

Remedial System or Monitoring Program:

2

of:

5

BWSC108 -A

Release Tracking Number

3

-

23246

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Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

CRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0800 (SUBPART H)

Remedial System or Monitoring Program:

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of:

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BWSC108 -A

Release Tracking Number

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Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup
CRA REMEDIAL MONITORING REPORT
MEASUREMENTS

BWSC108 -B

Pursuant to 310 CMR 40.0800 (SUBPART H)

Remedial System or Monitoring Program: of:

Release Tracking Number

For each Point of Measurement, related to concentration indicate the highest concentration detected during the reporting period, of each oil, hazardous material and/or remedial additive.

For each Point of Measurement for pressure differentials, indicate the lowest pressure differential detected during the reporting period.

Point of Measurement	Date (mm/dd/yyyy)	Contaminant, Measurement and/or Indicator Parameter	Influent Concentration (where applicable)	Midpoint Concentration (where applicable)	(check one)	Check here, if ND/BDL	Permissible Concentration or Pressure Differential	Units	Within Permissible Limits? (Y/N)
					☒ Discharge ☐ GroundWater Concentration Pressure Differential				
SSDS	01/08/2024	TOTAL VOCS	2.6		0.0	☒	0.13	PPMV	YES
SSDS	02/12/2024	TOTAL VOCS	1.4		0.0	☒	0.07	PPMV	YES
SSDS	03/12/2024	TOTAL VOCS	17.3		0.0	☒	0.865	PPMV	YES
SSDS	04/25/2024	TOTAL VOCS	1.3		0.0	☒	0.065	PPMV	YES
SSDS	05/10/2024	TOTAL VOCS	1.3		0.0	☒	0.065	PPMV	YES

☐ Check here if an additional BWSC108 B, Measurements Form(s), are needed.

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DRAFT COPY



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

CRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0800 (SUBPART H)

Remedial System or Monitoring Program:

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of:

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Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

CRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0800 (SUBPART H)

Remedial System or Monitoring Program:

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Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup
CRA REMEDIAL MONITORING REPORT
MEASUREMENTS

BWSC108 -B

Pursuant to 310 CMR 40.0800 (SUBPART H)

Remedial System or Monitoring Program: of:

Release Tracking Number

For each Point of Measurement, related to concentration indicate the highest concentration detected during the reporting period, of each oil, hazardous material and/or remedial additive.

For each Point of Measurement for pressure differentials, indicate the lowest pressure differential detected during the reporting period.

Point of Measurement	Date (mm/dd/yyyy)	Contaminant, Measurement and/or Indicator Parameter	Influent Concentration (where applicable)	Midpoint Concentration (where applicable)	(check one)	Check here, if ND/BDL	Permissible Concentration or Pressure Differential	Units	Within Permissible Limits? (Y/N)
					☒ Discharge ☐ GroundWater Concentration Pressure Differential				
SSDS	01/08/2024	TOTAL VOCS	0.0		0.0	☒	8	PPMV	YES
SSDS	04/25/2024	TOTAL VOCS	0.2		0.1	☐	8	PPMV	YES

☐ Check here if any additional BWSC108 B, Measurements Form(s), are needed.

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DRAFT COPY



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

CRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0800 (SUBPART H)

Remedial System or Monitoring Program:

4

of:

5

BWSC108 -A

Release Tracking Number

3

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Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

CRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0800 (SUBPART H)

Remedial System or Monitoring Program:

4

of:

5

BWSC108 -A

Release Tracking Number

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Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

CRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0800 (SUBPART H)

Remedial System or Monitoring Program:

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of:

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BWSC108 -A

Release Tracking Number

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-

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Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

CRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0800 (SUBPART H)

Remedial System or Monitoring Program:

5

of:

5

BWSC108 -A

Release Tracking Number

3

-

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Additional supporting information for:

CRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0800 (Subpart H)

BWSC-108A, Remedial System 5 of 5, Section G, Question 5: **SUMMARY STATEMENTS:**

Check here if additional/supporting Information, data, maps, and/or sketches are attached to the form.

The Summary Statement for BWSC-108A Remedial System 5 of 5 has been submitted via eDEP, Transmittal No. 1754278 as part of the "Phase V Status Report No. 26 and Remedial Monitoring Report No. 41," RTN 3-23246, 50 Tufts Street, Somerville, Massachusetts, dated August **X**, 2024.

Additional supporting information for:

CRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0800 (Subpart H)

BWSC-108A, Remedial System 4 of 5, Section 4, Question 1c: **SHUTDOWNS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM:** Reason(s) for
Unscheduled Shutdowns

The owner of 9 Knowlton Street had previously informed GEI that they did not want to run the fan, however, the fan was replaced on April 5, 2024. The total number of shutdown days during this reporting period was 111.

Additional supporting information for:

**COMPREHENSIVE RESPONSE ACTION TRANSMITTAL
FORM & PHASE I COMPLETION STATEMENT**

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

BWSC-108, Section B, Question 15 and 18: Submit a **Phase V Status Report and Status Report to maintain a Remedy Operation Status**, pursuant to 310 CMR 40.0893(2).

The Phase V Status Report and Status Report to maintain ROS has been submitted via eDEP, Transmittal No. 1754278, as "Phase V Status Report No. 26 and Remedial Monitoring Report No. 41," RTN 3-23246, 50 Tufts Street, Somerville, Massachusetts, dated August **X**, 2024.

Appendix B Property Owner Notification Letters

Table B-1. Correspondence Tracking
Phase V Status Report No. 26 and Remedial Monitoring Report No. 41
Residential and Commercial Properties
Somerville, Massachusetts

Property	Date	Communication
84 Franklin Street	1/24/2024	Certified environmental conditions letter mailed.
	3/8/2024	GEI visit with property owner to discuss sampling.
95 Franklin Street	1/30/2024	Certified environmental conditions letter mailed.
	6/6/2024	Certified environmental conditions letter mailed.
95R Franklin Street	3/12/2024	Certified environmental conditions letter mailed. Letter returned to sender, GEI sent to known property manager.
	5/22/2024	Property Manager contacted GEI to schedule inspection. No communication during additional follow-up.
97 Franklin Street	1/24/2024	Certified environmental conditions letter mailed.
	3/8/2021	GEI visit with property owner to discuss sampling.
	5/29/2024	Notice of Sampling letter mailed for indoor air and soil vapor sampling.
31-33 Knowlton Street	1/24/2024	Certified environmental conditions letter mailed.
	4/16/2024	Called in responses to GEI's letter.
	5/7/2024	GEI replaced fan, node battery, and conducted EPMM inspection.
35-37 Knowlton Street	1/24/2024	Certified environmental conditions letter mailed.
	2/3/2024	Called in response to letter. Requested a conversation with GEI. No communication during additional follow-up.
	2/8/2024	GEI spoke with resident about renovations, noted not working on basement. GEI attempted to schedule EPMM inspection, no additional communication with follow-up.
4 Morton Street	1/24/2024	Certified environmental conditions letter mailed.
10 Morton Street	Ongoing	Ongoing communication about once per month with homeowner (Randal Isaac) during renovations.
11 Morton Street	1/30/2024	Mailed environmental summary letter.
12 Morton Street	1/30/2024	Certified environmental conditions letter mailed.
	2/6/2024	Email correspondence in response to GEI's letter. Scheduled and conducted EPMM inspection.
13 Morton Street	2/16/2024	Email correspondence for property access to change node battery.
	6/8/2024	Email correspondence for property access to change node battery.
19-19A Morton Street	1/24/2024	Certified environmental conditions letter mailed.
	2/5/2024	Called in response to GEI's letter. Scheduled and conducted EPMM inspection.
31 Tufts Street	1/30/2024	Notice of Sampling letter mailed for indoor air and soil vapor sampling.
	4/3/2024	Sampling results letter mailed for indoor air and soil vapor sampling.
60 Tufts Street	4/3/2024	Notice of sampling letter mailed for groundwater sampling.
	5/29/2024	Sampling results letter mailed for groundwater sampling.
103 Washington Street	3/5/2024	Notice of Sampling letter mailed for indoor air and soil vapor sampling.
120 Washington Street	5/29/2024	Sampling results letter mailed for groundwater sampling.
City of Somerville	4/3/24	Notice of sampling letter mailed for groundwater sampling.
	5/29/24	Sampling results letter mailed for groundwater sampling.

General Notes:

1. EPMM = Exposure Pathway Mitigation Measure.



Consulting
Engineers and
Scientists

April 3, 2024
Project 04516-3

Sanctuary Condominium Trust
Charlesgate
867 Boylston Street
Boston, MA 02116

To Whom It May Concern:

**Re: Groundwater Sampling
60 Tufts Street
Somerville, Massachusetts**

Thank you for permitting GEI to conduct groundwater sampling at your property located at 60 Tufts Street in Somerville, Massachusetts. Following groundwater sampling, we are providing you with a "Notice of Environmental Sampling Form (BWSC-123)," as required by the Massachusetts Department of Environmental Protection (MassDEP).

Thank you for your continued assistance. Please contact me at 781-721-4012 or igladstone@geiconsultants.com if you have any questions.

Sincerely,

GEI CONSULTANTS, INC.

A blue ink signature of Ileen S. Gladstone, consisting of a large, stylized 'G' followed by a horizontal line and a small flourish.

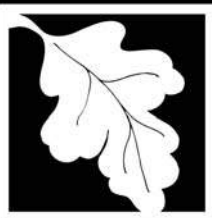
Ileen S. Gladstone, P.E., LSP, LEED AP
Senior Vice President

A blue ink signature of Christopher Coner, written in a cursive style.

Christopher Coner, CHMM
Project Manager

MEF:jam
Enclosure

c: Catherine Malagrida, UniFirst Corporation
MassDEP-NERO (as part of Status Report)



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

3 - 23246

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 50 Tufts Street
City/Town: Somerville Zip Code: 02145-4129

B. This notice is being provided to the following party:

1. Name: Director
2. Street Address: Sanctuary Condominium Trust, Charlesgate, 867 Boylston St
City/Town: Boston, MA Zip Code: 02116

C. This notice is being given to inform its recipient (the party listed in Section B):

- ☒ 1. That environmental sampling will be/~~has been~~ conducted at property owned by the recipient of this notice.
☐ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.
☐ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling will be/~~has been~~ conducted:

1. Street Address: 60 Tufts Street
City/Town: Somerville, MA Zip Code: 02145-4110
2. MCP phase of work during which the sampling will be/~~has been~~ conducted:
- | | |
|---|--|
| ☐ Immediate Response Action | ☐ Phase III Feasibility Evaluation |
| ☐ Release Abatement Measure | ☐ Phase IV Remedy Implementation Plan |
| ☐ Utility-related Abatement Measure | ☒ Phase V/Remedy Operation Status |
| ☐ Phase I Initial Site Investigation | ☐ Post-Temporary Solution Operation, Maintenance and Monitoring |
| ☐ Phase II Comprehensive Site Assessment | ☐ Other _____ |
- (specify)
3. Description of property where sampling will be/~~has been~~ conducted:
☒ residential ☐ commercial ☐ industrial ☐ school/playground ☒ Other Condominiums
(specify)
4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.

Semi-Annual Groundwater Sampling

E. Contact information related to the party providing this notice:

Contact Name: Ileen Gladstone, P.E., LSP, LEED AP
Street Address: GEI Consultants, Inc., 400 Unicorn Park Drive
City/Town: Woburn, MA Zip Code: 01801-3341
Telephone: (781) 721-4012 Email: igladstone@geiconsultants.com



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

3

- 23246

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at <http://www.mass.gov/eea/agencies/massdep/cleanup>. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See <http://public.dep.state.ma.us/SearchableSites2/Search.aspx> to view site-specific files on-line or <http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html> if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.



Consulting
Engineers and
Scientists

May 29, 2024
Project 04516-3

Sanctuary Condominium Trust
Charlesgate
867 Boylston Street
Boston, MA 02116

To Whom It May Concern:

**Re: Groundwater Sampling Results
60 Tufts Street
Somerville, Massachusetts**

On behalf of UniFirst Corporation, GEI Consultants, Inc. is providing results of the groundwater sampling conducted at 60 Tufts Street on April 3, 2024. The sampling was conducted as part of our investigation related to the site at 50 Tufts Street in Somerville, Massachusetts. We collected groundwater samples from monitoring wells MW201 and MW202, located on your property.

The groundwater samples were submitted for chemical testing for volatile organic compounds (VOCs). We have attached a summary table of the chemicals detected in the groundwater samples along with the previous sampling results, and the laboratory data sheets for the recent sampling.

Thank you for permitting GEI to conduct groundwater sampling at your property.

Individuals and public officials may request additional public involvement activities under the Massachusetts Contingency Plan (MCP; 310 CMR 40.1403(10) and 40.1404). The property owner may also request additional documentation, such as that listed at 310 CMR 40.0017(3), associated with the above-referenced samples. We will provide such additional documentation within 30 days of our receipt of such a request.

We appreciate your continued cooperation throughout the sampling process. If you have any immediate questions regarding the water testing results, please do not hesitate to contact me at 781-721-4012 or igladstone@geiconsultants.com.

Sincerely,

GEI CONSULTANTS, INC.

A blue ink signature of Heen S. Gladstone, consisting of a large, stylized 'H' followed by a long horizontal stroke.

Heen S. Gladstone, P.E., LSP, LEED AP
Senior Vice President

A blue ink signature of Christopher O. Coner, written in a cursive style.

Christopher O. Coner, CHMM
Project Manager

NMT/MEF:jam
Enclosures

c: Catherine Malagrida, UniFirst Corporation
MassDEP-NERO (as part of Status Report)



**Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup**

BWSC123

This Notice is Related to:
Release Tracking Number

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

3 - 23246

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 50 Tufts Street
City/Town: Somerville Zip Code: 02145-4129

B. This notice is being provided to the following party:

1. Name: Property Manager
2. Street Address: Sanctuary Condominium Trust, Charlesgate, 867 Boylston St
City/Town: Boston, MA Zip Code: 02116

C. This notice is being given to inform its recipient (the party listed in Section B):

- ☒ 1. That environmental sampling ~~will be~~/has been conducted at property owned by the recipient of this notice.
- ☒ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.
- ☒ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling ~~will be~~/has been conducted:

1. Street Address: 60 Tufts Street
City/Town: Somerville, MA Zip Code: 02145-4110
2. MCP phase of work during which the sampling ~~will be~~/has been conducted:
- | | |
|---|--|
| ☐ Immediate Response Action | ☐ Phase III Feasibility Evaluation |
| ☐ Release Abatement Measure | ☐ Phase IV Remedy Implementation Plan |
| ☐ Utility-related Abatement Measure | ☒ Phase V/Remedy Operation Status |
| ☐ Phase I Initial Site Investigation | ☐ Post-Temporary Solution Operation, Maintenance and Monitoring |
| ☐ Phase II Comprehensive Site Assessment | ☐ Other _____ |
- (specify)
3. Description of property where sampling ~~will be~~/has been conducted:
☒ residential ☐ commercial ☐ industrial ☐ school/playground ☒ Other Condominiums
(specify)
4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.

Annual Groundwater Sampling

E. Contact information related to the party providing this notice:

Contact Name: Ileen Gladstone, P.E., LSP, LEED AP
Street Address: GEI Consultants, Inc., 400 Unicorn Park Drive
City/Town: Woburn, MA Zip Code: 01801-3341
Telephone: (781) 721-4012 Email: igladstone@geiconsultants.com



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
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- 23246

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at <http://www.mass.gov/eea/agencies/massdep/cleanup>. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See <http://public.dep.state.ma.us/SearchableSites2/Search.aspx> to view site-specific files on-line or <http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html> if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

**Table 1. Chemical Testing Results - GEI Groundwater Sampling
50 Tufts Street
Somerville, Massachusetts**

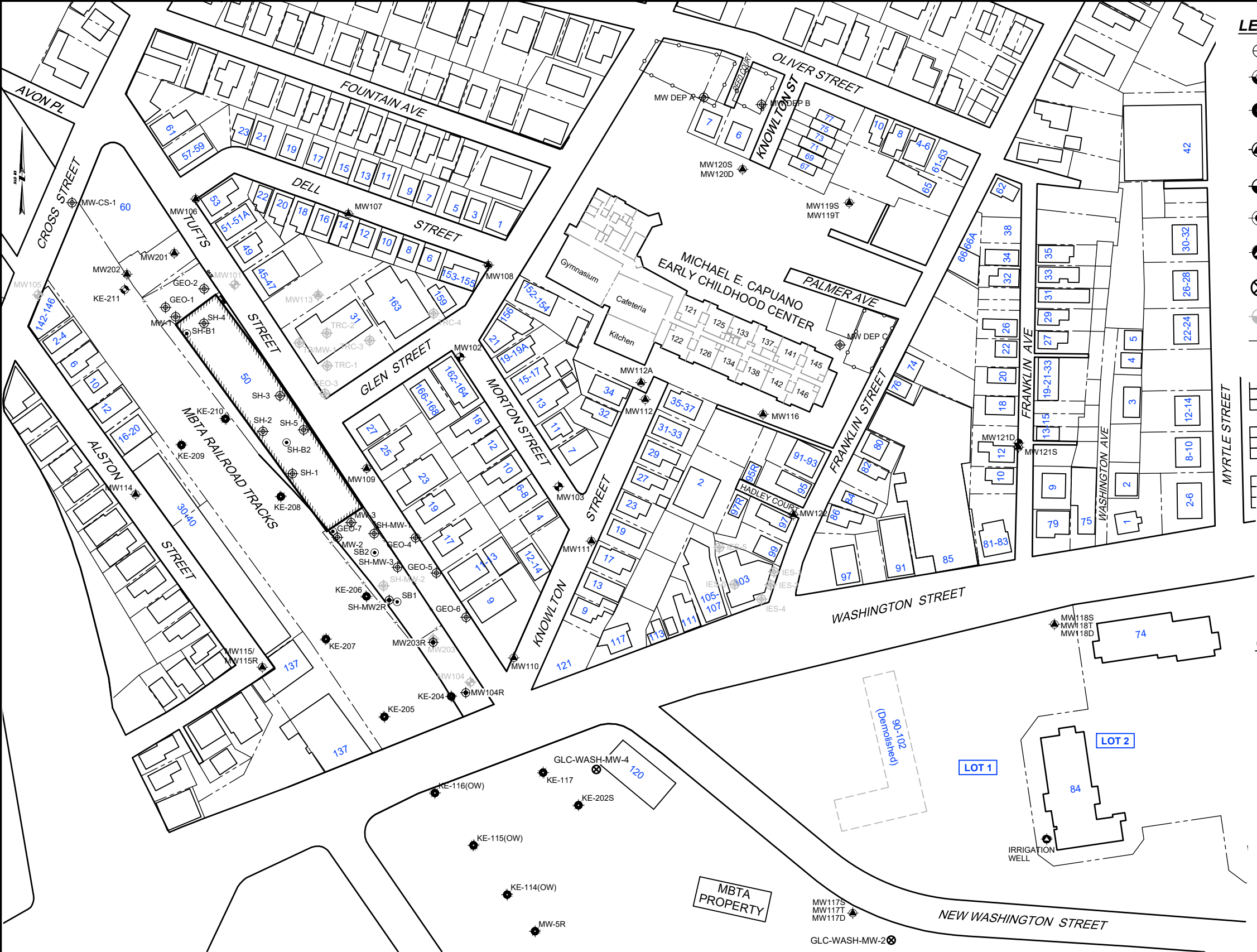
Sample Location:			MW201					MW202																										
Sample Name: Well Screen Interval (ft bos): Sample Date: Collected By:			MW201 11 to 21 7/19/07 GEI	MW201 11 to 21 10/12/07 GEI	MW201 11 to 21 1/11/08 GEI	MW201 11 to 21 4/15/08 GEI	MW201 11 to 21 4/3/24 GEI	MW202 10.5 to 20.5 7/19/07 GEI	MW202 10.5 to 20.5 10/12/07 GEI	MW202 10.5 to 20.5 1/11/08 GEI	MW202 10.5 to 20.5 4/15/08 GEI	MW202 10.5 to 20.5 7/15/08 GEI	MW202 10.5 to 20.5 10/21/08 GEI	MW202 10.5 to 20.5 1/13/09 GEI	MW202 10.5 to 20.5 4/15/09 GEI	MW202 10.5 to 20.5 7/14/09 GEI	MW202 10.5 to 20.5 10/14/09 GEI	MW202 10.5 to 20.5 4/12/10 GEI	MW202 10.5 to 20.5 4/22/11 GEI	MW202 10.5 to 20.5 4/17/12 GEI	MW202 10.5 to 20.5 4/23/13 GEI	MW202 10.5 to 20.5 5/11/14 GEI	MW202 10.5 to 20.5 4/2/15 GEI	MW202 10.5 to 20.5 4/29/16 GEI	MW202 10.5 to 20.5 4/17/17 GEI	MW202 10.5 to 20.5 4/4/18 GEI	MW202 10.5 to 20.5 4/16/19 GEI	MW202 10.5 to 20.5 4/17/20 GEI	MW202 10.5 to 20.5 4/14/21 GEI	MW202 10.5 to 20.5 4/13/22 GEI	MW202 10.5 to 20.5 4/18/23 GEI	MW202 10.5 to 20.5 4/3/24 GEI		
Analyte	Method	Units																																
Volatile Organic Compounds (VOCs)																																		
Acetone	8260	µg/l	NT	<5.0 J+	<5.0	<5.0	<5.0	NT	<5.0 J+	<5.0	<5.0	<5.0	<5.0	<5.0 J+	<5.0	<5.0	<5.0	<5.0 J+	<5.0	<5.0	<10	<10	<10	9.7	<10	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0		
Benzene			NT	<0.50	<0.50	<0.50	<0.5	NT	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 J+	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5		
Bromodichloromethane			NT	<1.0	<1.0	<1.0	<1.0	NT	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 J+	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
2-Butanone (MEK)			NT	<5.0 J+	<5.0	<5.0	<5.0	NT	<5.0 J+	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0		
Carbon disulfide			NT	<5.0	<5.0	<5.0	<2.0	NT	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0		
Carbon tetrachloride			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 J+	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
Chlorobenzene			NT	<1.0	<1.0	<1.0	<1.0	NT	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
Chloroethane			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0		
Chloroform			NT	0.47 J	0.40 J	0.24 J	<1.0	NT	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.89 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Chloromethane			NT	<2.0	<2.0	<2.0	<2.0	NT	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0		
1,4-Dichlorobenzene			NT	<1.0	<1.0	<1.0	<1.0	NT	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
1,1-Dichloroethane			<1.0	0.66 J	<1.0	0.23 J	<1.0	0.50 J	<1.0	<1.0	<1.0	0.46 J	<1.0	<1.0	0.34 J	<1.0	<1.0	3.1	5.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
1,2-Dichloroethane			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 J+	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
1,1-Dichloroethylene			4.7	4.9	5.2	3.0	1.3	1.1	<1.0	<1.0	<1.0	2.9	2.8	1.6	1.9	3.2	<1.0	<1.0	<1.0	15.5	<1.0	2.4	0.93 J	0.92 J	<1.0	0.46 J	1.1	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	
cis-1,2-Dichloroethylene			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
trans-1,2-Dichloroethylene			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
1,2-Dichloropropane			NT	<2.0	<2.0	<2.0	<1.0	NT	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0 J+	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
1,4-Dioxane			NT	<25	<25	<25	<25.0	NT	<25	<25	<25	<25	<25	<25 J+	<25 J+	<25	<25	<25	<25	<25	<25	<25	<25	<25	<130	<130	<130	<130	<250	<250	<250	<250		
Ethylbenzene			NT	<1.0	<1.0	<1.0	<1.0	NT	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
2-Hexanone			NT	<5.0 J+	<5.0	<5.0	<5.0	NT	<5.0 J+	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0			
4-Isopropyltoluene			NT	<5.0	<5.0	<5.0	<2.0	NT	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0 J+	<5.0	<5.0	<5.0	11.3	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0		
Methyl tert-butyl ether			NT	75.8	240	0.26 J	<2.0	NT	<1.0	<1.0	1.2	<1.0	<1.0	0.92 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	<2.0	<2.0	<2.0	<2.0	<2.0		
Methylene chloride			NT	<2.0	<2.0	<2.0	<2.0	NT	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0		
Naphthalene			NT	<5.0	<5.0	<5.0	<2.0	NT	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0 J+	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0		
Tert-amyl methyl ether			NT	4.6	17.7	<2.0	<2.0	NT	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0		
1,1,1,2-Tetrachloroethane			NT	<5.0	<5.0	<5.0	<1.0	NT	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
Tetrachloroethylene (PCE)			5.1	19.6	25.8	18.0	4.8	17.2	14.6	21.8	55.6	48.5	39.4	37.5	53.5	52.6	61.8	84.9	86.5	20.6	37.0	31.4	28.1	40.8	20.0	39.4	68.9	20.0	14.0	5.4	12.0	9.4		
Tetrahydrofuran			NT	<1.0	<1.0	<1.0	<2.0	NT	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 J+	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
Toluene			NT	<1.0	<1.0	<1.0	<1.0	NT	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 J+	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
1,1,1-Trichloroethane (TCA)			9.8	36.3	32.9	7.3	3.9	12.5	4.4	4.2	35.2	18.9	7.1	8.0	15.7	6.6	14.3 J+	16.8	18.6	2.8	5.2	6.9	7.4	7.1	3.5	8.1	9.8	2.7	1.7	<1.0	1.2	<1.0		
1,1,2-Trichloroethane			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 J+	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
Trichloroethylene (TCE)			4.5	7.2	8.2	6.4	2.1	2.2	1.5	1.6	6.9	8.6	5.3	5.6	11.8 J+	7.2	9.8	12.9	8.2	1.5	2.5	1.4	1.5	1.4	1.5	0.81 J	1.5	2.2	<1.0	<1.0	<1.0	<1.0		
Vinyl chloride			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
m,p-Xylene			NT	<1.0	<1.0	<1.0	<2.0	NT	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
o-Xylene			NT	<1.0	<1.0	<1.0	<1.0	NT	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		
Total Xylene			NT	<1.0	<1.0	<1.0	<1.0	NT	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<							

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
2. ft bgs = feet below ground surface.
3. µg/l = micrograms per liter.
4. "<" = The analyte was not detected at a concentration above the specified reporting limit.
5. SHA = Sanborn Head & Associates.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.
8. * = micrograms CaCO3 per liter

Qualifying Notes:

- | | |
|----|---|
| B | The analyte found in associated method blank. |
| C | The result has a high bias due to surrogate recovery above upper control limits. |
| E | The value exceeds the calibration range. |
| F+ | The result has a high bias due to matrix spike recovery above upper control limits. |
| F- | The result has a low bias due to matrix spike recovery below lower control limits. |
| G | The result is estimated due to duplicate precision outside control limits. |
| J | The reported result is below the laboratory reporting limit and is estimated. |
| J+ | The reported result is estimated. |
| K- | The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits. |
| K+ | The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits. |
| R | The result is rejected due to gross exceedence of minimum response factor criteria. |



LEGEND:

- MONITORING WELL INSTALLED BY TRC, 2014
- BORING BY KLEINFELDER, MARCH 2014 AND APRIL 2014
- MONITORING WELL BY KLEINFELDER, SEPTEMBER 2012, MARCH 2014, AND APRIL 2014
- MONITORING WELL WITH SOIL VAPOR SAMPLE PORT INSTALLED BY GEI, JANUARY 2007 - JANUARY 2008
- MONITORING WELL INSTALLED BY GEI, MAY 2006
- MONITORING WELL INSTALLED BY OTHERS
- PREVIOUSLY INSTALLED IRRIGATION WELL
- GLXC WELL INSTALLED AUGUST 2020
- WELLS IN GRAY HAVE BEEN DESTROYED OR DECOMMISSIONED
- CHAIN LINK FENCE

138 ROOM NUMBER AT CAPUANO SCHOOL

BOUNDARY OF COMMUNITY GARDENS

84 STREET ADDRESS

MBTA = MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

- GENERAL NOTES:**
- MONITORING WELL LOCATIONS AND ELEVATIONS, AND CAPUANO CENTER COMMUNITY GARDEN LOCATIONS WERE ESTABLISHED BY ON THE GROUND SURVEYS BY BSC GROUP, INC.
 - HORIZONTAL CONTROL FOR THIS PLAN WAS ESTABLISHED BY GPS AND IS BASED ON THE NORTH AMERICAN DATUM OF 1983.
 - VERTICAL CONTROL FOR THIS PLAN WAS ESTABLISHED BY GPS AND IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988.
 - STREET PROPERTY LINES, AND BUILDINGS ARE BASED ON SOMERVILLE ASSESSORS MAPS AND ARE BEST FIT RELATIVE TO THE LOCATION OF THE 50 TUFTS ST. BUILDING.
 - GEI OBSERVED ABANDONMENT OF SH-MW1 AND SH-1 THROUGH SH-5 IN 2007.

50 Tufts Street Somerville, Massachusetts		MONITORING WELL LOCATIONS	
		Project 04516-3	May 2024
UniFirst Corporation Wilmington, Massachusetts			Fig. 1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-05
 Client ID: 045163-MW201
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 10:20
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/08/24 11:23

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	4.8		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	3.9		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	1.3		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-05
 Client ID: 045163-MW201
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 10:20
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	2.1		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2418455-05**Date Collected:** 04/03/24 10:20**Client ID:** 045163-MW201**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	117		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-09
 Client ID: 045163-MW202
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 11:30
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/08/24 12:09

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	9.4		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	1.4		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-09
 Client ID: 045163-MW202
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 11:30
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2418455-09**Date Collected:** 04/03/24 11:30**Client ID:** 045163-MW202**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	116		70-130



Consulting May 29, 2024
Engineers and Project 045163
Scientists ITS Realty, LLC
87 Baker Street
Belmont, MA 02478

To Whom It May Concern:

**Re: Groundwater Sampling Results
120 Washington Street
Somerville, Massachusetts**

On behalf of UniFirst Corporation, GEI Consultants, Inc. is providing results of the groundwater sampling conducted at 120 Washington Street on April 2, 2024. The sampling was conducted as part of our investigation related to the site at 50 Tufts Street in Somerville, Massachusetts. We collected groundwater samples from monitoring wells MW117S, MW117T, and MW117D, located on your property.

The groundwater samples were submitted for chemical testing for volatile organic compounds (VOCs). We have attached a summary table of the chemicals detected in the groundwater samples along with the previous sampling results, and the laboratory data sheets for the recent sampling.

Thank you for permitting GEI to conduct groundwater sampling at your property.

Individuals and public officials may request additional public involvement activities under the Massachusetts Contingency Plan (MCP; 310 CMR 40.1403(10) and 40.1404). The property owner may also request additional documentation, such as that listed at 310 CMR 40.0017(3), associated with the above-referenced samples. We will provide such additional documentation within 30 days of our receipt of such a request.

We appreciate your continued cooperation throughout the sampling process. If you have any immediate questions regarding the water testing results, please do not hesitate to contact me at 781-721-4012 or igladstone@geiconsultants.com.

Sincerely,

GEI CONSULTANTS, INC.

A blue ink signature of Ileen S. Gladstone, consisting of a large, stylized loop followed by a horizontal line.

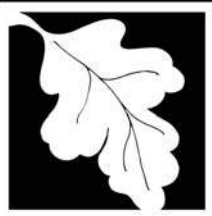
Ileen S. Gladstone, P.E., LSP, LEED AP
Senior Vice President

A blue ink signature of Christopher O. Coner, featuring a stylized 'C' and 'C'.

Christopher O. Coner, CHMM
Project Manager

MEF:jam
Enclosure

c: Catherine Malagrida, UniFirst Corporation
MassDEP-NERO (as part of Status Report)



**Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup**

BWSC123

This Notice is Related to:
Release Tracking Number

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

3 - 23246

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 50 Tufts Street
City/Town: Somerville Zip Code: 02145-4129

B. This notice is being provided to the following party:

1. Name: ITS Realty LLC
2. Street Address: 87 Baker Street
City/Town: Belmont, MA Zip Code: 02478

C. This notice is being given to inform its recipient (the party listed in Section B):

- ☒ 1. That environmental sampling ~~will be~~/has been conducted at property owned by the recipient of this notice.
- ☒ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.
- ☒ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling ~~will be~~/has been conducted:

1. Street Address: 120 Washington Street
City/Town: Somerville, MA Zip Code: 02143
2. MCP phase of work during which the sampling ~~will be~~/has been conducted:
- | | |
|---|--|
| ☐ Immediate Response Action | ☐ Phase III Feasibility Evaluation |
| ☐ Release Abatement Measure | ☐ Phase IV Remedy Implementation Plan |
| ☐ Utility-related Abatement Measure | ☒ Phase V/Remedy Operation Status |
| ☐ Phase I Initial Site Investigation | ☐ Post-Temporary Solution Operation, Maintenance and Monitoring |
| ☐ Phase II Comprehensive Site Assessment | ☐ Other _____ |
- (specify)
3. Description of property where sampling ~~will be~~/has been conducted:
- ☐ residential ☒ commercial ☐ industrial ☐ school/playground ☒ Other parking lot
- (specify)
4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.

Annual Groundwater Sampling

E. Contact information related to the party providing this notice:

Contact Name: Ileen Gladstone, P.E., LSP, LEED AP
Street Address: GEI Consultants, Inc., 400 Unicorn Park Drive
City/Town: Woburn, MA Zip Code: 01801-3341
Telephone: (781) 721-4012 Email: igladstone@geiconsultants.com



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

3 - 23246

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

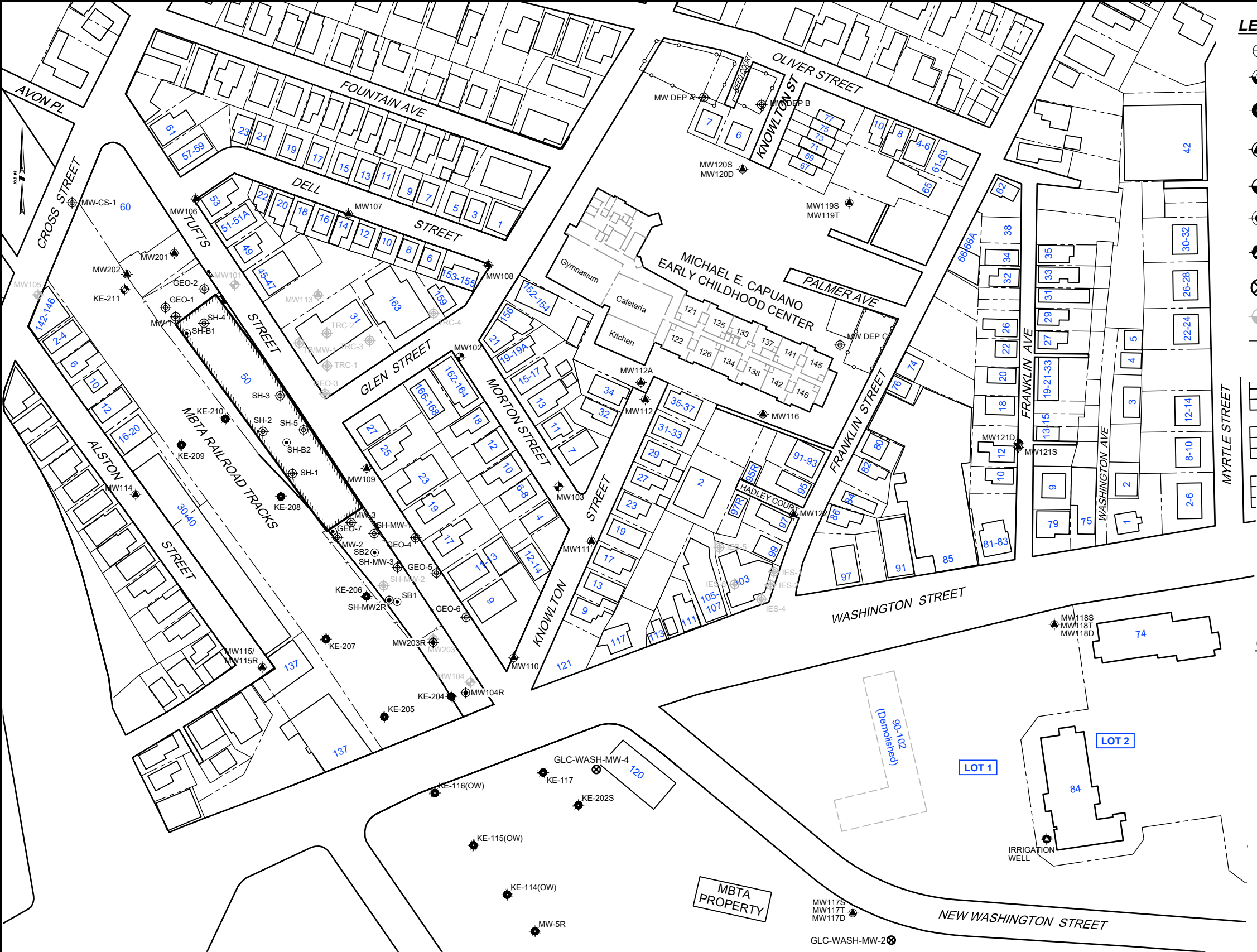
When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at <http://www.mass.gov/eea/agencies/massdep/cleanup>. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See <http://public.dep.state.ma.us/SearchableSites2/Search.aspx> to view site-specific files on-line or <http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html> if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.



LEGEND:

- MONITORING WELL INSTALLED BY TRC, 2014
- BORING BY KLEINFELDER, MARCH 2014 AND APRIL 2014
- MONITORING WELL BY KLEINFELDER, SEPTEMBER 2012, MARCH 2014, AND APRIL 2014
- MONITORING WELL WITH SOIL VAPOR SAMPLE PORT INSTALLED BY GEI, JANUARY 2007 - JANUARY 2008
- MONITORING WELL INSTALLED BY GEI, MAY 2006
- MONITORING WELL INSTALLED BY OTHERS
- PREVIOUSLY INSTALLED IRRIGATION WELL
- GLXC WELL INSTALLED AUGUST 2020
- WELLS IN GRAY HAVE BEEN DESTROYED OR DECOMMISSIONED
- CHAIN LINK FENCE
- ROOM NUMBER AT CAPUANO SCHOOL
- BOUNDARY OF COMMUNITY GARDENS
- STREET ADDRESS
- MBTA = MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

GENERAL NOTES:

- MONITORING WELL LOCATIONS AND ELEVATIONS, AND CAPUANO CENTER COMMUNITY GARDEN LOCATIONS WERE ESTABLISHED BY ON THE GROUND SURVEYS BY BSC GROUP, INC.
- HORIZONTAL CONTROL FOR THIS PLAN WAS ESTABLISHED BY GPS AND IS BASED ON THE NORTH AMERICAN DATUM OF 1983.
- VERTICAL CONTROL FOR THIS PLAN WAS ESTABLISHED BY GPS AND IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988.
- STREET PROPERTY LINES, AND BUILDINGS ARE BASED ON SOMERVILLE ASSESSORS MAPS AND ARE BEST FIT RELATIVE TO THE LOCATION OF THE 50 TUFTS ST. BUILDING.
- GEI OBSERVED ABANDONMENT OF SH-MW1 AND SH-1 THROUGH SH-5 IN 2007.

50 Tufts Street
Somerville, Massachusetts

UniFirst Corporation
Wilmington, Massachusetts



MONITORING WELL
LOCATIONS

Project 04516-3

May 2024

Fig. 1

B:\Private\04516\#Drafting\04516-3\Phase V SRs & RMRs\045163 PhV SR MW Loc (rev 1)

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-05
 Client ID: 045163-MW117D
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 10:02
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/05/24 07:45

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-05
 Client ID: 045163-MW117D
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 10:02
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-05**Date Collected:** 04/02/24 10:02**Client ID:** 045163-MW117D**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	112		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-06
 Client ID: 045163-MW117S
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 10:05
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 141,8260D
 Analytical Date: 04/05/24 08:08
 Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-06**Date Collected:** 04/02/24 10:05**Client ID:** 045163-MW117S**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-06**Date Collected:** 04/02/24 10:05**Client ID:** 045163-MW117S**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	112		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-07
 Client ID: 045163-MW117T
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 11:20
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/05/24 08:31

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-07
 Client ID: 045163-MW117T
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 11:20
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-07**Date Collected:** 04/02/24 11:20**Client ID:** 045163-MW117T**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	111		70-130



Consulting April 3, 2024
Engineers and Project 04516-3
Scientists

Ms. Kimberly Wells
City Clerk
93 Highland Avenue, 1st Floor
Somerville, MA 02143

Dear Ms. Wells:

**Re: Groundwater Sampling
Certain "Public Ways", 90 Washington Street Redevelopment and
Michael E. Capuano Early Childhood Center
Somerville, Massachusetts**

Thank you for permitting GEI to conduct groundwater sampling at the Capuano Early Childhood Center, 90 Washington Street Redevelopment, and on certain public ways in Somerville, Massachusetts. Following groundwater sampling, we are providing you with a "Notice of Environmental Sampling Form (BWSC-123)," as required by the Massachusetts Department of Environmental Protection (MassDEP).

Thank you for your continued assistance. Please contact me at 781-721-4012 or igladstone@geiconsultants.com if you have any questions.

Sincerely,

GEI CONSULTANTS, INC.

A blue ink signature of Ileen S. Gladstone, consisting of a large, stylized loop followed by a horizontal line.

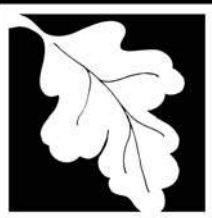
Ileen S. Gladstone, P.E., LSP, LEED AP
Senior Vice President

A black ink signature of Christopher Coner, written in a cursive style.

Christopher Coner, CHMM
Project Manager

MEF:jam
Enclosure

c: Dr. Jeff Curley, Interim Superintendent
Felix Caraballo, Principal
Catherine Malagrida, UniFirst Corporation
MassDEP-NERO (as part of Status Report)



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

3 - 23246

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 50 Tufts Street
City/Town: Somerville Zip Code: 02145-4129

B. This notice is being provided to the following party:

1. Name: Mr. Vithal V. Deshpande, City of Somerville
2. Street Address: City Hall Annex, 50 Evergreen Avenue
City/Town: Somerville, MA Zip Code: 02145-2819

C. This notice is being given to inform its recipient (the party listed in Section B):

- ☒ 1. That environmental sampling will be/~~has been~~ conducted at property owned by the recipient of this notice.
☐ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.
☐ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling will be/~~has been~~ conducted:

1. Street Address: Capuano Center, 90 Washington Street, Somerville City Streets
City/Town: Somerville, MA Zip Code: 02145
2. MCP phase of work during which the sampling will be/~~has been~~ conducted:
- | | |
|---|--|
| ☐ Immediate Response Action | ☐ Phase III Feasibility Evaluation |
| ☐ Release Abatement Measure | ☐ Phase IV Remedy Implementation Plan |
| ☐ Utility-related Abatement Measure | ☒ Phase V/Remedy Operation Status |
| ☐ Phase I Initial Site Investigation | ☐ Post-Temporary Solution Operation, Maintenance and Monitoring |
| ☐ Phase II Comprehensive Site Assessment | ☐ Other _____ |
- (specify)
3. Description of property where sampling will be/~~has been~~ conducted:
☐ residential ☐ commercial ☐ industrial ☒ school/playground ☒ Other City Streets
(specify)
4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.

Semi-Annual Groundwater Sampling

E. Contact information related to the party providing this notice:

Contact Name: Ileen Gladstone, P.E., LSP, LEED AP
Street Address: GEI Consultants, Inc., 400 Unicorn Park Drive
City/Town: Woburn, MA Zip Code: 01801-3341
Telephone: (781) 721-4012 Email: igladstone@geiconsultants.com



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

3 - 23246

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at <http://www.mass.gov/eea/agencies/massdep/cleanup>. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See <http://public.dep.state.ma.us/SearchableSites2/Search.aspx> to view site-specific files on-line or <http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html> if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.



Consulting
Engineers and
Scientists

May 29, 2024
Project 04516-3

Ms. Kimberly Wells
City Clerk
93 Highland Avenue, 1st Floor
Somerville, MA 02143

Dear Ms. Wells:

**Re: Groundwater Sampling Results
Certain “Public Ways” and
Michael E. Capuano Early Childhood Center
Somerville, Massachusetts
MassDEP RTN 3-23246**

On behalf of UniFirst Corporation, GEI Consultants, Inc. is providing results for groundwater samples collected on April 2, April 3, and April 4, 2024, from groundwater monitoring wells located on municipal property. The sampling was conducted as part of our investigation related to the site at 50 Tufts Street in Somerville, Massachusetts. We:

- Collected groundwater samples from fifteen shallow monitoring wells (GEO-4, GEO-5, GEO-6, MW102, MW103, MW106, MW107, MW108, MW109, MW112A, MW118S, MW119S, MW120S, MW121S, and MW122,), two monitoring wells screened in till (MW118T and MW119T), and four monitoring wells screened in bedrock (MW118D, MW120D, MW121D and MW116) between April 2 and 4, 2024. We collected a duplicate sample (MW900) from MW116.

Groundwater samples were submitted for chemical testing for volatile organic compounds (VOCs) and one groundwater sample (MW112A) was also tested for manganese and general chemistry compounds including alkalinity, chloride, nitrates, and sulfates. We have attached a summary table of the chemicals detected in the groundwater samples along with the previous sampling results, the laboratory data sheets for the recent sampling, and a figure showing the sampling locations.

Thank you for permitting GEI to conduct groundwater sampling at the Capuano Early Childhood Center, 90 Washington Street, and on certain public ways in Somerville, Massachusetts.

Individuals and public officials may request additional public involvement activities under the Massachusetts Contingency Plan (MCP; 310 CMR 40.1403[10] and 40.1404). The property owner may also request additional documentation, such as that listed at 310 CMR 40.0017(3), associated with the above-referenced samples. We will provide such additional documentation within 30 days of our receipt of such a request.

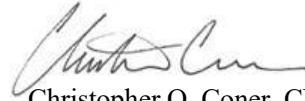
We appreciate your continued cooperation throughout the sampling process. If you have any immediate questions regarding the water testing results, please do not hesitate to contact me at 781-721-4012 or igladstone@geiconsultants.com.

Sincerely,

GEI CONSULTANTS, INC.

A blue ink signature of Ileen S. Gladstone, consisting of a large, stylized 'G' followed by a horizontal line.

Ileen S. Gladstone, P.E., LSP, LEED AP
Senior Vice President

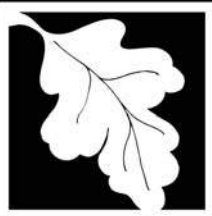
A black ink signature of Christopher O. Coner, written in a cursive style.

Christopher O. Coner, CHMM
Project Manager

NMT/MEF:jam

Enclosures

c: Rubén Carmona, Superintendent
Felix Caraballo, Principal
Catherine Malagrida, UniFirst Corporation
MassDEP-NERO (as part of Status Report)



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

3 - 23246

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 50 Tufts Street
City/Town: Somerville Zip Code: 02145-4129

B. This notice is being provided to the following party:

1. Name: Ms. Kimberly Wells, City of Somerville Clerk
2. Street Address: 93 Highland Avenue, 1st Floor
City/Town: Somerville, MA Zip Code: 02143

C. This notice is being given to inform its recipient (the party listed in Section B):

- ☒ 1. That environmental sampling ~~will be~~/has been conducted at property owned by the recipient of this notice.
- ☒ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.
- ☒ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling ~~will be~~/has been conducted:

1. Street Address: Capuano Center, 90 Washington Street, Somerville City Streets
City/Town: Somerville, MA Zip Code: 02145
2. MCP phase of work during which the sampling ~~will be~~/has been conducted:
- | | |
|---|--|
| ☐ Immediate Response Action | ☐ Phase III Feasibility Evaluation |
| ☐ Release Abatement Measure | ☐ Phase IV Remedy Implementation Plan |
| ☐ Utility-related Abatement Measure | ☒ Phase V/Remedy Operation Status |
| ☐ Phase I Initial Site Investigation | ☐ Post-Temporary Solution Operation, Maintenance and Monitoring |
| ☐ Phase II Comprehensive Site Assessment | ☐ Other _____ |
- (specify)
3. Description of property where sampling ~~will be~~/has been conducted:
- ☐ residential ☐ commercial ☐ industrial ☒ school/playground ☒ Other City Streets
- (specify)
4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.

Semi-Annual Groundwater Sampling

E. Contact information related to the party providing this notice:

Contact Name: Ileen Gladstone, P.E., LSP, LEED AP
Street Address: GEI Consultants, Inc., 400 Unicorn Park Drive
City/Town: Woburn, MA Zip Code: 01801-3341
Telephone: (781) 721-4012 Email: igladstone@geiconsultants.com



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

3

- 23246

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

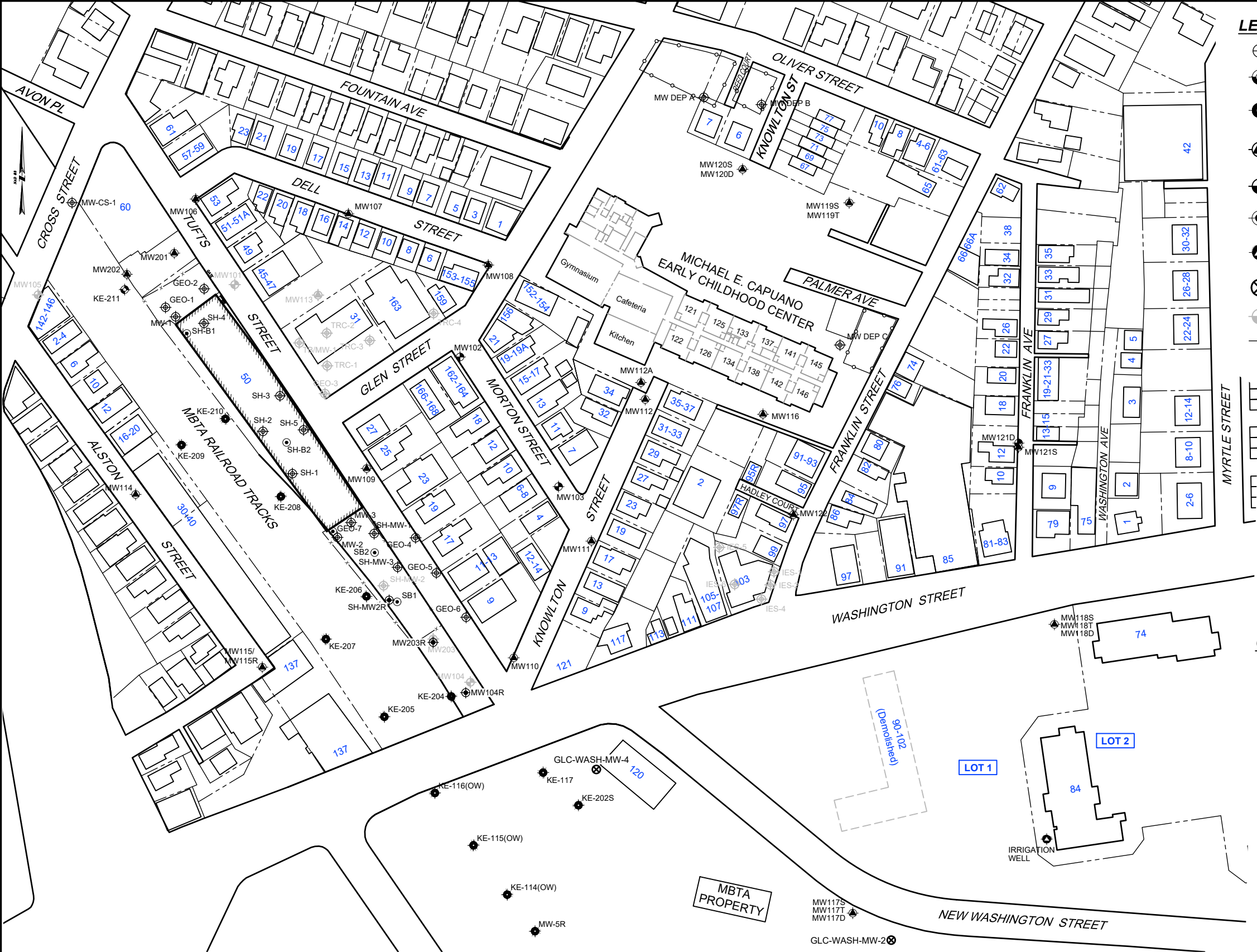
When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at <http://www.mass.gov/eea/agencies/massdep/cleanup>. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See <http://public.dep.state.ma.us/SearchableSites2/Search.aspx> to view site-specific files on-line or <http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html> if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

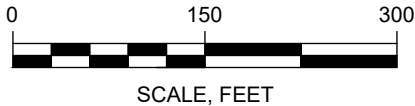


LEGEND:

- MONITORING WELL INSTALLED BY TRC, 2014
- BORING BY KLEINFELDER, MARCH 2014 AND APRIL 2014
- MONITORING WELL BY KLEINFELDER, SEPTEMBER 2012, MARCH 2014, AND APRIL 2014
- MONITORING WELL WITH SOIL VAPOR SAMPLE PORT INSTALLED BY GEI, JANUARY 2007 - JANUARY 2008
- MONITORING WELL INSTALLED BY GEI, MAY 2006
- MONITORING WELL INSTALLED BY OTHERS
- PREVIOUSLY INSTALLED IRRIGATION WELL
- GLXC WELL INSTALLED AUGUST 2020
- WELLS IN GRAY HAVE BEEN DESTROYED OR DECOMMISSIONED
- CHAIN LINK FENCE
- 138 ROOM NUMBER AT CAPUANO SCHOOL
- BOUNDARY OF COMMUNITY GARDENS
- 84 STREET ADDRESS
- MBTA = MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

GENERAL NOTES:

- MONITORING WELL LOCATIONS AND ELEVATIONS, AND CAPUANO CENTER COMMUNITY GARDEN LOCATIONS WERE ESTABLISHED BY ON THE GROUND SURVEYS BY BSC GROUP, INC.
- HORIZONTAL CONTROL FOR THIS PLAN WAS ESTABLISHED BY GPS AND IS BASED ON THE NORTH AMERICAN DATUM OF 1983.
- VERTICAL CONTROL FOR THIS PLAN WAS ESTABLISHED BY GPS AND IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988.
- STREET PROPERTY LINES, AND BUILDINGS ARE BASED ON SOMERVILLE ASSESSORS MAPS AND ARE BEST FIT RELATIVE TO THE LOCATION OF THE 50 TUFTS ST. BUILDING.
- GEI OBSERVED ABANDONMENT OF SH-MW1 AND SH-1 THROUGH SH-5 IN 2007.



50 Tufts Street Somerville, Massachusetts		MONITORING WELL LOCATIONS	
UniFirst Corporation Wilmington, Massachusetts		Project 04516-3	May 2024

Table 1. Chemical Testing Results - GEI Groundwater Sampling
50 Tufts Street
Somerville, Massachusetts

Sample Location:			GEO-4						GEO-5						GEO-6						MW102						MW103											
Sample Name: Well Screen Interval (ft bgs): Sample Date: Collected By:			GEO-4 4 to 19 8/16/04 Geolnsiaht	GEO-4 4 to 19 5/24/06 GEI	GEO-4 4 to 19 10/4/06 GEI	GEO-4 4 to 19 1/16/07 GEI	GEO4 4 to 19 4/16/07 GEI	GEO4 4 to 19 4/4/24 GEI	GEO-5 5 to 20 8/16/04 Geolnsiaht	GEO-5 5 to 20 5/24/06 GEI	GEO-5 5 to 20 10/4/06 GEI	GEO-5 5 to 20 1/16/07 GEI	GEO5 5 to 20 4/16/07 GEI	GEO5 5 to 20 4/3/24 GEI	GEO-6 5 to 20 8/16/04 Geolnsiaht	GEO-6 5 to 20 5/24/06 GEI	GEO-6 5 to 20 10/4/06 GEI	GEO-6 5 to 20 1/16/07 GEI	MW900 (FD) 5 to 20 1/16/07 GEI	GEO6 5 to 20 4/16/07 GEI	MW901 (FD) 5 to 20 4/16/07 GEI	GEO6 5 to 20 4/3/24 GEI	MW-102 6 to 16 5/24/06 GEI	MW102 6 to 16 10/5/06 GEI	MW-102 6 to 16 1/16/07 GEI	MW102 6 to 16 4/13/07 GEI	MW102 6 to 16 7/18/07 GEI	MW102 6 to 16 10/10/07 GEI	MW102 6 to 16 1/10/08 GEI	MW102 6 to 16 4/17/08 GEI	MW102 6 to 16 4/3/24 GEI	MW-103 6 to 16 5/24/06 GEI	MW103 6 to 16 8/7/06 GEI	MW103 6 to 16 10/5/06 GEI	MW-103 6 to 16 1/16/07 GEI	MW103 6 to 16 1/18/07 GEI	MW103 6 to 16 4/13/07 GEI	MW103 6 to 16 4/3/24 GEI
Analyte	Method	Units																																				
Volatile Organic Compounds (VOCs)																																						
Acetone	8260	µg/l	< 2000	< 5.0	< 5.0	< 100	< 50	<120	< 2000	< 5.0	< 5.0	< 250	< 5.0	<5.0	< 200	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	<50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	<5.0	< 5.0	< 5.0	< 5.0	< 25	<5.0	
Benzene			< 100	< 0.50	< 0.50	< 10	< 5.0	<12	< 100	< 0.50	< 0.50	< 25	< 0.50	<0.5	< 10	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	<5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT	< 1.0	< 0.50	< 0.50	<0.5	< 0.50	< 0.50	< 0.50	< 2.5	<0.5	
Bromodichloromethane			< 100	< 1.0	< 1.0	< 20	< 10	<25	< 100	< 1.0	< 1.0	< 50	< 1.0	<1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	<10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 5.0	<1.0	
2-Butanone (MEK)			< 1000	< 5.0	< 5.0	< 100	< 50	<120	< 1000	< 5.0	< 5.0	< 250	< 5.0	<5.0	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	<50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	<5	< 5.0	< 5.0	< 5.0	< 25	<5	
Carbon disulfide			< 5.0	< 5.0	< 5.0	< 100	< 50	<50	< 5.0	< 5.0	< 5.0	< 250	< 5.0	<2.0	< 5.0	< 5.0	< 5.0	0.81 J	< 5.0	< 10	< 5.0	<20	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	<2.0	< 5.0	< 5.0	< 5.0	< 25	<2.0	
Carbon tetrachloride			< 100	< 1.0	< 1.0	< 20	< 10	<25	< 100	< 1.0	< 1.0	< 50	< 1.0	<1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	<10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 5.0	<1.0	
Chlorobenzene			< 100	< 1.0	< 1.0	< 20	< 10	<25	< 100	< 1.0	< 1.0	< 50	< 1.0	<1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	<10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 5.0	<1.0	
Chloroethane			< 200	< 2.0	< 2.0	< 40	< 20	<50	< 200	< 2.0	< 2.0	< 100	< 2.0	<2.0	< 20	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	<20	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	<2.0	< 2.0	< 2.0	< 2.0	< 10	<2.0	
Chloroform			< 100	< 1.0	2.5	< 20	< 10	<25	< 100	< 1.0	0.62 J	< 50	< 1.0	<1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	<10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	0.65 J	0.62 J	< 5.0	
Chloromethane			< 200	< 2.0	< 2.0	< 40	< 20	<50	< 200	< 2.0	< 2.0	< 100	< 2.0	<2.0	< 20	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	<20	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	<2.0	< 2.0	< 2.0	< 2.0	< 10	<2.0		
1,4-Dichlorobenzene			< 100	< 1.0	< 1.0	< 20	< 10	<25	< 100	< 1.0	< 1.0	< 50	< 1.0	<1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	<10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 5.0	<1.0	
1,1-Dichloroethane			< 100	2.7	7.1	< 20	< 10	<25	< 100	3.0	9.7	< 50	< 1.0	<1.0	< 10	2.0	4.4	1.7	1.6	0.92 J	1.1	<10	< 1.0	0.88 J	< 1.0	< 1.0	0.42 J	2.1	4.1	0.51 J	27.2	3.7	13.0	11.5	10.1	7.9	<10	<1.0
1,2-Dichloroethane			< 100	< 1.0	< 1.0	< 20	< 10	<25	< 100	< 1.0	< 1.0	< 50	< 1.0	<1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	<10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	< 2.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 5.0	<1.0	
1,1-Dichloroethylene			< 100	6.1	17.8	< 20	< 10	<25	< 100	8.9	32.7	< 50	< 1.0	<1.0	< 10	< 4.6	11.0	4.4	3.2	2.8	3.8	<10	6.3	50.2	30	< 1.0	23.6	39.7	51.8	22.2 C+	<1.0	13.4	2.0	6.5	4.3	4.3	8	<1.0
cis-1,2-Dichloroethylene			< 100	6.3	16.7	< 20	5.5 J	<25	< 100	12.5	35.2	< 50	< 1.0	<1.0	14.8	9.1	15.4	7.7	6.9	5.3	6.3	<10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	<1.0	3.0	2.5	< 1.0	< 1.0	< 5.0	
trans-1,2-Dichloroethylene			< 100	< 1.0	< 1.0	< 20	< 10	<25	< 100	< 1.0	< 1.0	< 50	< 1.0	<1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	<10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	<1.0		
1,2-Dichloropropane			< 100	< 2.0	< 2.0	< 40	< 20	<25	< 100	< 2.0	< 2.0	< 100	< 2.0	<1.0	< 10	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	<10	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	< 4.0	< 2.0	< 2.0	<1.0	< 2.0	< 2.0	< 2.0	< 10	<1.0	
1,4-Dioxane			NT	< 25	< 25 R	< 5.0	< 250	<6200	NT	< 25	< 25 R	< 1300	< 25	<250	NT	< 25	< 25 R	< 25	< 25	< 5.0	< 25	<2500	< 25	< 25 R	< 25	< 25	< 25	NT	< 50	< 25	< 25	<250	< 25	< 25 R	< 25	< 25	< 130	<250
Ethylbenzene			< 100	< 1.0	< 1.0	< 20	< 10	<25	< 100	< 1.0	< 1.0	< 50	< 1.0	<1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	<10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	<1.0	
2-Hexanone			< 1000	< 5.0	< 5.0	< 100	< 50	<120	< 1000	< 5.0	< 5.0	< 250	< 5.0	<5.0	< 100	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	<50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	<5.0	< 5.0	< 5.0	< 5.0	< 25	<5.0	
4-Isopropyltoluene			< 100	< 5.0	< 5.0	< 100	< 50	<50	< 100	< 5.0	< 5.0	< 250	< 5.0	<2.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	<20	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	<5.0	< 5.0	< 5.0	< 5.0	< 25	<2.0	
Methyl tert-butyl ether			< 100	< 1.0	1.5 J+	< 20	< 10	<50	< 100	1.3	3.3 J+	< 50	< 1.0	<2.0	< 10	1.3	1.9 J+	1.2	1.2	0.80 J	0.81 J	<20	< 1.0	4.5 J+	2.7	< 1.0	NT	17.3	24.2	1.7 C+	<2.0	< 1.0	< 1.0	0.65 J J+	< 1.0	< 1.0	< 5.0	<2.0
Methylene chloride			< 1000	< 2.0	< 2.0	< 40	< 20	<50	< 1000	< 2.0	< 2.0	< 100	< 2.0	<2.0	< 100	< 2.0	< 2.0	< 2.0	1.3 J	2.5 J	< 2.0	<20	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	4.3	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10	<2.0	
Naphthalene			< 100	< 5.0	< 5.0	< 100	< 50	<50	< 100	< 5.0	< 5.0	< 250	< 5.0	<2.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	<20	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	<2.0	< 5.0	< 5.0	< 5.0	< 25	<2.0	
Tert-amyl methyl ether			NT	< 2.0	< 2.0	< 40	< 20	<50	NT	< 2.0	< 2.0	< 100	< 2.0	<2.0	< 10	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	<20	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10	<2.0	
1,1,1,2-Tetrachloroethane			< 100	< 5.0	0.84 J	< 100	< 50	<25	< 100	< 5.0	< 5.0	< 250	< 5.0	<1.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	<10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	< 10	< 5.0	< 5.0	<1.0	< 5.0	< 5.0	< 5.0	< 5.0	<1.0	
Tetrachloroethylene (PCE)			12900	6690	24100	16700	8240	3600	14400	2440	12900	254 F+	17.9	100	782	675	1980	632	594 F+	618	497	1900																

Table 1. Chemical Testing Results - GEI Groundwater Sampling
50 Tufts Street
Somerville, Massachusetts

[illegible]

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
2. ft bgs = feet below ground surface.
3. µg/l = micrograms per liter.
4. "<" = The analyte was not detected at a concentration above the specified reporting limit.
5. SHA = Sanborn Head & Associates.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.
8. * = micrograms CaCO3 per liter

Qualifying Notes:

- | | |
|----|---|
| B | The analyte found in associated method blank. |
| C | The result has a high bias due to surrogate recovery above upper control limits. |
| E | The value exceeds the calibration range. |
| F+ | The result has a high bias due to matrix spike recovery above upper control limits. |
| F- | The result has a low bias due to matrix spike recovery below lower control limits. |
| G | The result is estimated due to duplicate precision outside control limits. |
| J | The reported result is below the laboratory reporting limit and is estimated. |
| J+ | The reported result is estimated. |
| K- | The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits. |
| K+ | The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits. |
| R | The result is rejected due to gross exceedence of minimum response factor criteria. |

Table 1. Chemical Testing Results - GEI Groundwater Sampling
50 Tufts Street
Somerville, Massachusetts

Sample Location:			MW112A																																		
Sample Name: Well Screen Interval (ft bgs): Sample Date: Collected By:			MW112A 4 to 19 1/12/09 GEI	MW900 (FD) 4 to 19 1/12/09 GEI	MW112A 4 to 19 4/13/09 GEI	MW901 (FD) 4 to 19 4/13/09 GEI	MW112A 4 to 19 7/14/09 GEI	MW901 (FD) 4 to 19 7/14/09 GEI	MW112A 4 to 19 10/14/09 GEI	MW900 (FD) 4 to 19 10/14/09 GEI	MW112A 4 to 19 4/12/10 GEI	MW900 (FD) 4 to 19 4/12/10 GEI	MW112A 4 to 19 10/27/10 GEI	MW112A 4 to 19 4/20/11 GEI	MW900 (FD) 4 to 19 4/20/11 GEI	MW112A 4 to 19 11/16/11 GEI	MW112A 4 to 19 4/16/12 GEI	MW900 (FD) 4 to 19 4/16/12 GEI	MW112A 4 to 19 11/12/12 GEI	MW112A 4 to 19 4/24/13 GEI	MW900 (FD) 4 to 19 4/24/13 GEI	MW112A 4 to 19 11/18/13 GEI	MW112A 4 to 19 6/11/14 GEI	MW112A 4 to 19 11/18/14 GEI	MW112A 4 to 19 4/17/15 GEI	MW900 (FD) 4 to 19 4/17/15 GEI	MW112A 4 to 19 4/28/16 GEI	MW112A 4 to 19 11/21/16 GEI	MW112A 4 to 19 4/18/17 GEI	MW901 (FD) 4 to 19 4/18/2017 GEI	MW112A 4 to 19 11/10/2017 GEI	MW112A 4 to 19 4/4/2018 GEI	MW112A 4 to 19 ##### GEI	MW112A 4 to 19 4/15/2019 GEI	MW112A 4 to 19 ##### GEI	MW112A 4 to 19 4/16/2020 GEI	
Analyte	Method	Units																																			
Volatile Organic Compounds (VOCs)																																					
Acetone	8260	µg/l	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 F+	< 5.0 F+	< 5.0	< 5.0	< 5.0 J+	< 5.0 J+	< 5.0	< 10	< 10	< 5.0	< 5.0 K-	< 5.0 K-	< 10 K-	< 20	< 20	< 10 K-	< 10 K-	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 25	< 25	< 10	< 25		
Benzene			0.26 J	0.27 J	0.36 J	0.28 J	< 0.50 F-	< 0.50 F-	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	< 0.50	< 0.50	< 1.0	< 1.0	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.43 J	0.23 J	0.23 J	< 1.0	< 1.3	< 1.3	< 1.3	< 0.50
Bromodichloromethane			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.5	< 2.5	< 1.0	< 5.0		
2-Butanone (MEK)			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 10	< 5.0	< 5.0	< 5.0	< 10 K-	< 10	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 10	< 20	< 25	< 25	< 10	< 25		
Carbon disulfide			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 10	< 5.0	< 5.0	< 5.0	< 10	< 10	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 2.0	< 4.0	< 5.0	< 5.0	< 2.0	< 10			
Carbon tetrachloride			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.5	< 2.5	< 2.5	< 1.0	< 5.0	
Chlorobenzene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.5	< 2.5	< 2.5	< 1.0	< 5.0	
Chloroethane			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0 G	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.5	< 2.5	< 2.5	< 1.0	< 10	
Chloroform	0.23 J		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.5	< 2.5	< 2.5	< 1.0	< 5.0	
Chloromethane			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0 G	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.5	< 2.5	< 2.5	< 1.0	< 10		
1,4-Dichlorobenzene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.5	< 2.5	< 2.5	< 1.0	< 5.0	
1,1-Dichloroethane			70.9	70.7	109	89.6	99.3	107	137	142	83.8	88.3	85.5	38.1	38.8	39.5	71.5	69.0	48.1	24.2	37.0	73.5	18.3	64.1 G K-	23.2	25.2	14.1	77	34.1	30.1	88.1	25.3	25.3	38.5	36.9	51	
1,2-Dichloroethane			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.5	< 2.5	< 2.5	< 1.0	< 5.0	
1,1-Dichloroethylene			61.7	61.7	89.2	73.0	91.4	97.7	123	130	74.9	78.6	89.1	57.9	53.0	47.6	86.4	76.2	57.3	30.2	30.0	86.5	38.5	109 K+	39	42.9	21.5	132	47.7	43.0	92.5	33.0	33.0	57.3	63.1	79	
cis-1,2-Dichloroethylene			225	224	296	247	311	380	390	373	165	196	214	143	140	169	178	185	150	145	112	209	150	321	71.1	84.1	108	230	78.2	71.8	155	98.5	98.5	60.6	131.0	72	
trans-1,2-Dichloroethylene			< 1.0	< 1.0	7.9 G	2.5 G	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5.9	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	2.9	< 1.0	< 1.0	< 1.0 K+	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.5	< 2.5	< 2.5	< 1.0	< 5.0	
1,2-Dichloropropane			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.5	< 2.5	< 2.5	< 1.0	< 5.0		
1,4-Dioxane			< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	< 50	< 25	< 25	< 25	< 50	< 50	< 50	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	< 130	< 130	< 250	< 310	< 310	< 310	< 130	< 1200
Ethylbenzene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.5	< 2.5	< 2.5	< 1.0	< 5.0	
2-Hexanone			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 10	< 5.0	< 5.0	< 5.0	< 10	< 10	< 10	< 5.0 K-	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 13	< 13	< 13	< 5.0	< 25		
4-Isopropyltoluene			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 10	< 5.0	< 5.0	< 5.0	< 10	< 10	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 2.0	< 4.0	< 5.0	< 5.0	< 2.0	< 10		
Methyl tert-butyl ether			33.3	32.9	29.9	23.3	41.4	46.0	77.5	81.4	15.9	20.3	50.3	9.2	9.1	22.3	27.1	26.2	28.8	19.0	14.1	64.6	4.6	47.3 K+	11.9	13.9	3.9	53.9	11.6	11.4	56	19.1	19.1	25.9	21.7	27	
Methylene chloride			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 5.0	< 5.0	< 5.0	< 2.0	< 10	
Naphthalene			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 J+	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 10	< 5.0	< 5.0	< 5.0	< 10	< 10	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 13	< 13	< 13	< 5.0	< 10		
Tert-amyl methyl ether			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0	< 4.0	< 4.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 5.0	< 5.0	< 5.0	< 2.0	< 10	
1,1,1,2-Tetrachloroethane			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 10	< 5.0	< 5.0	< 5.0	< 10	< 10	< 10	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5	< 2.5	< 2.5	< 1.0	< 5.0		
Tetrachloroethane (PCE)			287	290	290 G	384	359	360	393	405	481	477	561	415	409	363	569 R	604	546	339	581	371	266	398	303	300	258	508	435	404	908	317	317	555	463	750	
Tetrahydrofuran			< 10	< 10	< 10	< 10	< 10 F+	< 10 F+	< 10	< 10	< 10	< 10	< 10	< 20	< 20	< 10	< 10	< 10	< 20 F- K-	< 20	< 20	< 10	< 10	< 1													

Table 1. Chemical Testing Results - GEI Groundwater Sampling
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Well Screen Interval (ft bgs): Sample Date: Collected By:			MW112A							MW116																									
			MW112A 4 to 19 11/18/2020 GEI	MW112A 4 to 19 4/13/2021 GEI	MW112A 4 to 19 11/30/2021 GEI	MW112A 4 to 19 4/14/2022 GEI	MW112A 4 to 19 11/29/2022 GEI	MW112A 4 to 19 5/11/2023 GEI	MW112A 4 to 19 4/2/2024 GEI	MW116 5 to 15 3/23/07 GEI	MW116 5 to 15 4/16/07 GEI	MW116 5 to 15 7/18/07 GEI	MW901 (FD) 5 to 15 7/18/07 GEI	MW116 5 to 15 10/12/07 GEI	MW901 (FD) 5 to 15 10/12/07 GEI	MW116 5 to 15 1/11/08 GEI	MW901 (FD) 5 to 15 1/11/08 GEI	MW116 5 to 15 4/15/08 GEI	MW901 (FD) 5 to 15 4/15/08 GEI	MW116 5 to 15 7/16/08 GEI	MW116 5 to 15 10/21/08 GEI	MW116 5 to 15 1/14/09 GEI	MW116 5 to 15 4/15/09 GEI	MW116 5 to 15 7/14/09 GEI	MW116 5 to 15 10/14/09 GEI	MW116 5 to 15 4/13/10 GEI	MW901 (FD) 5 to 15 4/13/10 GEI	MW116 5 to 15 4/21/11 GEI	MW901 (FD) 5 to 15 4/21/11 GEI	MW116 5 to 15 4/17/12 GEI	MW901 (FD) 5 to 15 4/17/12 GEI	MW116 5 to 15 4/24/13 GEI	MW901 (FD) 5 to 15 4/24/13 GEI	MW116 5 to 15 5/1/14 GEI	
Analyte	Method	Units																																	
Volatile Organic Compounds (VOCs)																																			
Acetone	8260	µg/l	<25	<25	<25	<25	<25	<10	<25	<12	<5.0	<5.0	NT	NT	<10 J+	<10 J+	<5.0	<5.0 J+	<5.0	<5.0	<10	<5.0	<10	<5.0	<10 F+	<10	<25	<5.0	<5.0	<5.0	<5.0	<20	<10	<20	
Benzene			<2.5	<2.5	<2.5	<2.5	<2.5	<1	<2.5	<1.2	0.24 J	<0.50	NT	NT	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<1.0	<1.0	<2.5	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	
Bromodichloromethane			<5.0	<5.0	<5.0	<5.0	<5	<2	<5.0	<2.5	<1.0	<1.0	NT	NT	1.1 J	0.99 J	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	
2-Butanone (MEK)			<25	<25	<25	<25	<25	<5	<25	<12	<5.0	<5.0	NT	NT	<10 J+	<10 J+	<5.0	<5.0 J+	<5.0	<5.0	<10	<5.0	<10	<5.0	<10	<5.0	<10	<25	<5.0	<5.0	<5.0	<10	<5.0	<10	
Carbon disulfide			<10	<10	<10	<10	<10	<2	<10	<5.0	<5.0	<5.0	NT	NT	<10	<10	<5.0	<5.0	<5.0	<5.0	2.9 J	<5.0	<10	<5.0	<10	<10	<25	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<10	
Carbon tetrachloride			<5.0	<5.0	<5.0	<5.0	<5	<1	<5.0	<2.5	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0		
Chlorobenzene			<5.0	<5.0	<5.0	<5.0	<5	<2	<5.0	<2.5	<1.0	<1.0	NT	NT	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0		
Chloroethane			<10	<10	<10	<10	<10	<4	<10	<5.0	<2.0	<2.0	2.4	2.3	2.4 J	2.4 J	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0	<4.0	<2.0	<4.0	<2.0	<4.0	<10	<2.0	<2.0	<2.0	<4.0	<2.0	<4.0	
Chloroform			<5.0	<5.0	<5.0	<5.0	<5	<2	<5.0	<2.5	<1.0	<1.0	NT	NT	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0		
Chloromethane			<10	<10	<10	<10	<10	<4	<10	<5.0	<2.0	<2.0	NT	NT	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0	<4.0	<2.0	<4.0	<10	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0	<4.0		
1,4-Dichlorobenzene			<5.0	<5.0	<5.0	<5.0	<5	<2	<5.0	<2.5	<1.0	<1.0	NT	NT	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0 J+	<2.0 J+	<2.0	<5.0	<1.0	1.6	1.0	0.82 J	0.77 J	<2.0	<1.0	<2.0
1,1-Dichloroethane			48	40	35	24	35	50	39	28	135	4.4	97.3	96.9	80.1	79.3	18.9	15.6	66.8	64.5	114	109	72.5	101	69.7	92.2	63.9	68.9	27.8	23.4	52.8	51.8	31.5	25.8	38.5
1,2-Dichloroethane			<5.0	<5.0	<5.0	<5.0	<5	<2	<5.0	<2.5	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<1.0	<1.0	0.23 J	0.20 J	<2.0	<1.0	<2.0	<1.0	<2.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	
1,1-Dichloroethylene			98	58	63	45	67	27	53	46	107	2.7	33.8	34.0	24.8	22.4	14.7	11.8	46.3	45.7	78.4	79.8	56.5	70.6	35.2	68.8	49.1	51.9	22.4	14.1	43.3	42.3	26.7	39.4	46.1
cis-1,2-Dichloroethylene			130	62	120	85	68	100	64	100	103	21.7	415	431	346	341	49.5	42.9	105	102	286	319	146	84.1	92.7	133	80.7	92.1	84.6	68.3	115	112	94.8	144	107
trans-1,2-Dichloroethylene			<5.0	<5.0	<5.0	<5.0	<5	<2	<5.0	<2.5	1.8	<1.0	4.3	4.4	2.5	2.4	0.88 J	1.3	<1.0	<1.0	<2.0	1.3	<2.0	<1.0	<2.0	<2.0	<5.0	1.6	1.6	1.8	<1.0	<1.0	<2.0	1.1	<2.0
1,2-Dichloropropane			<5.0	<5.0	<5.0	<5.0	<5	<2	<5.0	<2.5	<2.0	<2.0	NT	NT	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0	<4.0	<2.0	<4.0	<10	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0	<4.0	<2.0	
1,4-Dioxane			<1200	<1200	<1200	<1200	<1200	<500	<1200	<620	<25	<25	NT	NT	<50	<50	<25	<25	<25	<25	<50	<25	<50	<25	<50 F-	<50	<130	<25	<25	<25	<25 K-	<25 K-	<100	<50	<50
Ethylbenzene			<5.0	<5.0	<5.0	<5.0	<5	<2	<5.0	<2.5	<1.0	<1.0	NT	NT	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	
2-Hexanone			<25	<25	<25	<25	<25	<10	<25	<12	<5.0	<5.0	NT	NT	<10 J+	<10 J+	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<10	<5.0	<10	<10	<25	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<10	
4-Isopropyltoluene			<10	<10	<10	<10	<10	<4	<10	<5.0	<5.0	<5.0	NT	NT	<10	<10	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<10	<5.0 J+	<10 J+	<10	<25	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<10	
Methyl tert-butyl ether			30	19	12	5	13	10	15	6	12.3	0.40 J	NT	NT	12.5	12.7	2.1 J+	1.3 J+	7.1	6.9	18.2	18.0	9.0	11.7	7.2	8.4	5.4	5.9	4.4	4.4	3.4	3.3	14.1	10.6 K-	4.4
Methylene chloride			<10	<10	<10	<10	<10	<4	<10	<5.0	<2.0	<2.0	NT	NT	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0	<4.0	<2.0	<4.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0	<4.0	
Naphthalene			<10	<10	<10	<10	<10	<4	<10	<5.0	<5.0	<5.0	NT	NT	<10	<10	<5.0	0.68 J	<5.0	<5.0	<10	<5.0	<10	<5.0 J+	<10 J+	<10	<25	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<10	
Tert-amyl methyl ether			<10	<10	<10	<10	<10	<4	<10	<5.0	<2.0	<2.0	NT	NT	<4.0	<4.0	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0	<4.0	<2.0	<4.0	<10	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0 K-	<4.0	<4.0	
1,1,1,2-Tetrachloroethane			<5.0	<5.0	<5.0	<5.0	<5	<2	<5.0	<2.5	<5.0	<5.0	NT	NT	<10	<10	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<10	<5.0	<10	<25	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<10	<5.0	<10
Tetrachloroethylene (PCE)			760	630	460	370	560	300	460	370	1180	32.2	167	168	116	110	267	257 J+	603	607	864	839	795	796 G	1020	1010	860	933	323	166	774	778	527	396	618
Tetrahydrofuran			<10	<10	<10	<10	<10	<4	<10	<5.0	30.6	13.8	NT	NT	<20	<20	<10	<10	<10	<10	<20	<10	<20	<10	<20 F+	<20	<50	<10	<10	<10	<10	<20	<10	13.3 J	<4.0
Toluene			<5.0	<5.0	<5.0	<5.0	<5	<2	<5.0	<2.5	<1.0	<1.0	NT	NT	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<2.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0
1,1,1-Trichloroethane (TCA)			7.8	7.0	5.1	3.0	<5	4.1	5.4	3.5	21.6	0.67 J	10.6	10.7	9.4	9.2	3.3	2.5	10.7	10.7	16.0	15.6	12.8	16.6	8.5	14.3 J+	8.2	10.2	4.2	3.8	8.0	8.3	6.0	3.0	6.7
1,1,2-Trichloroethane			<5.0	<5.0	<5.0	<5.0	<5	<2	<5.0	<2.5	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<1.0	<2.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0
Trichloroethylene (TCE)			190	140	130	95	140	170	110	84	358	19.4	72.7	73.2	136	129	66.3	53.6	175	174	257	269	229	341	196	267	195	212	88.7	57.7	181	182	126	95.4	164
Vinyl chloride			<5.0	<5.0	<5.0	<5.0	<5	<2	11	12	14.1	3.2	185	182	84.9	76.4	3.1																		

Table 1. Chemical Testing Results - GEI Groundwater Sampling
50 Tufts Street
Somerville, Massachusetts

Sample Location:			MW116																		MW118D																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Sample Name:			MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)	MW116	MW900 (FD)

**Table 1. Chemical Testing Results - GEI Groundwater Sampling
50 Tufts Street
Somerville, Massachusetts**

[illegible]

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
2. ft bgs = feet below ground surface.
3. µg/l = micrograms per liter.
4. "<" = The analyte was not detected at a concentration above the specified reporting limit.
5. SHA = Sanborn Head & Associates.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.
8. * = micrograms CaCO3 per liter

Qualifying Notes:

- | | |
|----|---|
| B | The analyte found in associated method blank. |
| C | The result has a high bias due to surrogate recovery above upper control limits. |
| E | The value exceeds the calibration range. |
| F+ | The result has a high bias due to matrix spike recovery above upper control limits. |
| F- | The result has a low bias due to matrix spike recovery below lower control limits. |
| G | The result is estimated due to duplicate precision outside control limits. |
| J | The reported result is below the laboratory reporting limit and is estimated. |
| J+ | The reported result is estimated. |
| K- | The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits. |
| K+ | The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits. |
| R | The result is rejected due to gross exceedence of minimum response factor criteria. |

Table 1. Chemical Testing Results - GEI Groundwater Sampling
50 Tufts Street
Somerville, Massachusetts

Sample Location:			MW118S															MW118T																
Sample Name:			MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118S	MW118T	MW118T	MW118T	MW118T	MW118T	MW118T	MW118T	MW118T	MW118T	MW118T	MW118T	MW118T	MW118T	MW118T			
Well Screen Interval (ft bgs):			3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	3 to 14	39.5 to 49.5	39.5 to 49.5	39.5 to 49.5	39.5 to 49.5	39.5 to 49.5	39.5 to 49.5	39.5 to 49.5	39.5 to 49.5	39.5 to 49.5	39.5 to 49.5	39.5 to 49.5	39.5 to 49.5	39.5 to 49.5				
Sample Date:			10/14/09	4/12/10	4/20/11	4/24/13	5/1/14	4/2/15	4/28/16	4/17/17	4/3/18	4/15/19	4/16/20	4/13/21	4/12/22	4/17/23	4/2/24	7/20/07	8/30/07	10/11/07	39.5 to 49.5	39.5 to 49.5	39.5 to 49.5	39.5 to 49.5	39.5 to 49.5	39.5 to 49.5	39.5 to 49.5	39.5 to 49.5	39.5 to 49.5	39.5 to 49.5				
Collected By:			GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI	GEI			
Analyte	Method	Units																																
Volatile Organic Compounds (VOCs)																																		
Acetone	8260	µg/l	< 5.0	< 5.0 J+	< 5.0	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NT	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 J+	< 5.0	< 10	< 10	< 10	
Benzene			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Bromodichloromethane			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
2-Butanone (MEK)			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 10	< 10	< 10	< 5.0	< 5.0	< 5.0	< 5.0	NT	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Carbon disulfide			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Carbon tetrachloride			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chlorobenzene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloroethane			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Chloroform			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Chloromethane			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	NT	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
1,4-Dichlorobenzene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1-Dichloroethane			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	35.4	34.4	44.2	42.3	42.0	41.9	37.0	33.4	33.6	40.0	53.3 J+	37.8	35.9	28.8	26.9	28.4	31.3
1,2-Dichloroethane			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,1-Dichloroethylene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
cis-1,2-Dichloroethylene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.45 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.45 J	
trans-1,2-Dichloroethylene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloropropane			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	NT	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
1,4-Dioxane			< 25	< 25	< 25	< 50	< 25	< 25	< 25	< 130	< 130	< 130	< 250	< 250	< 250	< 250	< 250	NT	NT	< 25	< 25	< 25 J+	< 25	< 25	< 25 J+	< 25	< 25	< 25	< 25	< 25	< 50	< 25	< 25	
Ethylbenzene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	NT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
2-Hexanone			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NT	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
4-Isopropyltoluene			< 5.0	< 5.0	21.9	< 5.0	2.9 J	6.0	< 5.0	10.3	< 2.0	< 2.0	< 2.0	3.1	< 2.0	< 2.0	2.8	NT	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Methyl tert-butyl ether			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	NT	2.4	3.1	2.2	2.5	2.2	2.3	2.0	1.9	7.5	1.2	2.4	1.8	7.1	0.94 J	1.5
Methylene chloride			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	NT	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Naphthalene			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Tert-amyl methyl ether			< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	NT	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
1,1,1,2-Tetrachloroethane			< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	NT	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	
Tetrachloroethylene (PCE)			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.29 J	< 1.0	0.38 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	3.0	3.8	2.2	2.9	2.7	2.5	2.4	2.1	2.0	1.7	2.8	1.6	2.1	1.5	1.0	1.3	
Tetrahydrofuran			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NT	NT	< 10	< 10	< 10 J+	< 10	< 10	< 10	< 10 J+	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
Toluene			< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NT	NT	< 1.0	< 1.0	< 1.0	< 1.0</											

**Table 1. Chemical Testing Results - GEI Groundwater Sampling
50 Tufts Street
Somerville, Massachusetts**

[illegible]

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
2. ft bgs = feet below ground surface.
3. µg/l = micrograms per liter.
4. "<" = The analyte was not detected at a concentration above the specified reporting limit.
5. SHA = Sanborn Head & Associates.
6. FD = Field Duplicate Sample.
7. NT = Not Tested.
8. * = micrograms CaCO3 per liter

Qualifying Notes:

- | | |
|----|---|
| B | The analyte found in associated method blank. |
| C | The result has a high bias due to surrogate recovery above upper control limits. |
| E | The value exceeds the calibration range. |
| F+ | The result has a high bias due to matrix spike recovery above upper control limits. |
| F- | The result has a low bias due to matrix spike recovery below lower control limits. |
| G | The result is estimated due to duplicate precision outside control limits. |
| J | The reported result is below the laboratory reporting limit and is estimated. |
| J+ | The reported result is estimated. |
| K- | The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits. |
| K+ | The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits. |
| R | The result is rejected due to gross exceedence of minimum response factor criteria. |

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50 Tufts Street
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50 Tufts Street
Somerville, Massachusetts

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Table 1. Chemical Testing Results - GEI Groundwater Sampling
50 Tufts Street
Somerville, Massachusetts

[illegible]

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Qualifying Notes:

- | | |
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Table 1. Chemical Testing Results - GEI Groundwater Sampling
50 Tufts Street
Somerville, Massachusetts

Sample Location: Sample Name: Well Screen Interval (ft bgs): Sample Date: Collected By:			MW121S						MW122																														
			MW121S 5 to 20 4/15/19 GEI	MW121S 5 to 20 4/16/20 GEI	MW121S 5 to 20 4/13/21 GEI	MW121S 5 to 20 4/13/22 GEI	MW121S 5 to 20 4/13/22 GEI	MW121S 5 to 20 4/3/24 GEI	MW122 4 to 16 1/30/08 GEI	MW122 4 to 16 4/17/08 GEI	MW122 4 to 16 7/14/08 GEI	MW122 4 to 16 10/22/08 GEI	MW122 4 to 16 1/12/09 GEI	MW122 4 to 16 4/13/09 GEI	MW122 4 to 16 7/15/09 GEI	MW122 4 to 16 10/14/09 GEI	MW122 4 to 16 4/12/10 GEI	MW122 4 to 16 10/27/10 GEI	MW122 4 to 16 4/20/11 GEI	MW122 4 to 16 11/16/11 GEI	MW122 4 to 16 4/17/12 GEI	MW122 4 to 16 11/12/12 GEI	MW122 4 to 16 4/23/13 GEI	MW122 4 to 16 11/18/13 GEI	MW122 4 to 16 4/30/14 GEI	MW122 4 to 16 11/18/14 GEI	MW122 4 to 16 4/2/15 GEI	MW122 4 to 16 11/19/15 GEI	MW122 4 to 16 4/28/16 GEI	MW122 4 to 16 11/21/16 GEI	MW122 4 to 16 4/17/2017 GEI	MW122 4 to 16 11/8/2017 GEI	MW122 4 to 16 4/3/2018 GEI	MW122 4 to 16 11/15/2018 GEI	MW122 4 to 16 4/16/2019 GEI	MW122 4 to 16 11/22/2019 GEI	MW122 4 to 16 4/16/2020 GEI	MW122 4 to 16 11/18/2020 GEI	
Analyte	Method	Units																																					
Volatile Organic Compounds (VOCs)																																							
Acetone	8260	µg/l	<10	<5.0	<5.0	<5.0	<5.0	<5.0	< 5.0 J+	9.6 J	11.1	7.2	5.7	< 5.0	< 5.0 F-	< 10	3.8 J+	< 5.0	17.8	< 5.0	< 5.0	< 25 K-	< 50	< 50 K-	< 20	< 20	< 20	< 10	9.4 J	< 40	< 50	< 10	< 50	< 50	< 20	< 50	< 50	< 50	
Benzene			<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.50	< 1.0	0.46 J	< 0.50	< 0.50	< 0.50	0.23 J	< 1.0	< 0.50	< 0.50	< 1.0	< 0.50	< 0.50	< 2.5	< 2.5	< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 0.50	< 2.0	< 2.5	< 0.50	< 2.5	< 2.5	< 1.0	< 2.5	< 5.0	< 5.0	
Bromodichloromethane			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	1.1 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 2.0	< 2.0	< 2.0	< 1.0	< 4.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 10	< 10		
2-Butanone (MEK)			<10	<5.0	<5.0	<5.0	<5.0	<5.0	< 5.0 J+	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 25 K-	< 25	< 25	< 25	< 10	< 10	< 10	17.3 J	< 10	< 40	< 50	< 10	< 50	< 50	< 20	< 50	< 50		
Carbon disulfide			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0 F-	< 10	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 25	< 25	< 25	< 10	< 10	< 10	< 10	< 5.0	< 20	< 10	< 2.0	< 10	< 10	< 4.0	< 10	< 20	< 20		
Carbon tetrachloride			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 4.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 10	< 10	
Chlorobenzene			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 2.0	< 2.0	< 2.0	< 1.0	< 4.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 10	< 10		
Chloroethane			<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0 F-	< 4.0	< 2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 10	< 10	< 10	< 4.0	< 4.0 G	< 4.0	< 4.0	< 4.0	< 2.0	< 8.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 20	< 20
Chloroform			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	< 2.0	< 1.0	0.61 J	< 1.0	< 1.0	0.75 J	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 4.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 10	< 10		
Chloromethane			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	< 4.0	< 2.0	< 2.0 J+	< 2.0	< 2.0	< 2.0 F-	< 4.0	< 2.0	< 4.0	< 2.0	< 4.0	< 2.0	< 10	< 10	< 10	< 4.0	< 4.0 G	< 4.0	< 4.0	< 2.0	< 8.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 20	< 20	
1,4-Dichlorobenzene			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 10	< 10	
1,1-Dichloroethane			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	19.3	30.4 C+	10.1	15.0	16.0	25.8	21.2	20.8	29.6	20.3	19.1	15.2	17.2	14.4	11.1	12.7	15.9	12.8	15.0	6.8	18.3	20.5	30.9	14.8	22.7	17.0	18.8	16.4	29	48	
1,2-Dichloroethane			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 10	< 10	
1,1-Dichloroethylene			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.0	9.0 C+	1.4	4.4	3.4	6.1	5.3 F-	6.6	7.3	4.6	8.3	4.1	6.4	4.7 J	4.1 J	4.4 J	5.1	3.8 K+	4.5	1.6 J	5.8	5.6	7.7	3.9	8.1	7.3	6.1	6.9	<10	12	
cis-1,2-Dichloroethylene			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	60.6	70.7 C+	34.0	62.5	91.5	61.9	39.4	109.0	58.6	117	45.5	66.4	61.5	84.7	56.2	67.2	68.0	69.3	43.8	75.7	61.3	68.5	67.2	50	64.4	71.0	69.1	95.8	150	150	
trans-1,2-Dichloroethylene			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.87 J	< 2.0	< 1.0	< 1.0	0.93 J	< 1.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 2.0	< 1.0	< 5.0	< 5.0	< 5.0	< 2.0	< 2.0 K+	< 2.0	< 2.0	< 1.0	< 4.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 10	< 10	
1,2-Dichloropropane			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 10	< 10	< 10	< 4.0	< 4.0	< 4.0	< 4.0	< 2.0	< 8.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 10	< 10	
1,4-Dioxane			<130	<250	<250	<250	<250	<250	< 25	< 50	< 25	< 25	< 25	< 25	< 25	< 50	< 25	< 25	< 50	< 25	< 25	< 25 K-	< 130	< 260	< 260	< 50 K-	< 50 K-	< 50	< 50	< 200	< 630	< 630	< 630	< 250	< 630	< 2500	< 2500		
Ethylbenzene			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 4.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 10	< 10		
2-Hexanone			<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	< 5.0 J+	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 10	< 5.0	< 25	< 25	< 25 K-	< 10	< 10	< 10	< 10	< 10	< 40	< 25	< 5.0	< 25	< 25	< 2.0	< 5.0	< 5.0			
4-Isopropyltoluene			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 10	< 5.0	< 25	< 25	< 25	< 10	< 10	< 10	< 10	< 10	< 20	< 10	< 2.0	< 10	< 10	< 4.0	< 20	< 20			
Methyl tert-butyl ether			<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	3.3	3.9 C+	1.9	5.6	2.5	3.2	3.3	2.9	2.3	2.7	2.9	2.1	2.7	2.2 J	< 5.0 K-	< 5.0	1.5 J	2.6 K+	1.8	1.0 J	1.2	< 4.0	3.7	1.1	< 5.0	< 5.0	2.1	< 5.0	< 20	< 20	
Methylene chloride			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 4.0	< 2.0	< 4.0	< 2.0	< 10	< 10	< 10	< 4.0	< 4.0	< 4.0	1.1 J	< 2.0	39.4	< 10	< 2.0	< 10	< 10	< 4.0	< 10	< 20			
Napthalene			<5.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 5.0	< 10	2.6 J	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 10	< 5.0	< 25	< 25	< 25	< 10	< 10	< 10	< 10	< 10	< 5.0	< 20	< 25	< 5.0	< 25	< 10	< 25	< 20	< 20			
Tert-amyl methyl ether			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0	< 2.0	< 4.0	< 2.0	< 4.0	< 2.0	< 10	< 10	< 10	< 4.0	< 4.0	< 4.0	< 4.0	< 2.0	< 8.0	< 10	< 2.0	< 10	< 10	< 4.0	< 10	< 20	< 20		
1,1,1,2-Tetrachloroethane			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 5.0	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 5.0	< 5.0	< 10	< 5.0	< 25	< 25	< 25	< 10	< 10	< 10	< 2.0	< 4.0	< 5.0	< 1.0	< 5.0	< 5.0	< 2.0	< 5.0	< 10	< 10			
Tetrachloroethylene (PCE)			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	477	691 C+	122	352 G	312	499 G	677</																								

Table 1. Chemical Testing Results - GEI Groundwater Sampling
50 Tufts Street
Somerville, Massachusetts

Sample Location:			MW122						
Sample Name:			MW122	MW122	MW122	MW122	MW122	MW122	MW122
Well Screen Interval (ft bgs):			4 to 16	4 to 16	4 to 16	4 to 16	4 to 16	4 to 16	4 to 16
Sample Date:			4/13/2021	11/30/2021	4/13/2022	11/29/2022	4/17/2023	11/7/2023	4/4/2024
Collected By:			GEI	GEI	GEI	GEI	GEI	GEI	GEI
Analyte	Method	Units							
Volatile Organic Compounds (VOCs)									
Acetone	8260	µg/l	<25	<100	<100	<50	<50	<5.0	<10
Benzene			<2.5	<10	<10	<5	<5	<0.50	<1
Bromodichloromethane			<5.0	<20	<20	<10	<10	<1.0	<2.0
2-Butanone (MEK)			<50	<100	<100	<50	<50	<5.0	<10
Carbon disulfide			<5	<40	<40	<20	<20	<2.0	<4.0
Carbon tetrachloride			<5	<20	<20	<10	<10	<1.0	<2.0
Chlorobenzene			<5.0	<20	<20	<10	<10	<1.0	<2.0
Chloroethane			<10	<40	<40	<20	<20	<2.0	<4.0
Chloroform			<10	<20	<20	<10	<10	<1.0	<2.0
Chloromethane			<10	<40	<40	<20	<20	<2.0	<4.0
1,4-Dichlorobenzene			<5	<20	<20	<10	<10	<1.0	<2.0
1,1-Dichloroethane			44	46	35	24	18	16	3.1
1,2-Dichloroethane			<5.0	<20	<20	<10	<10	<1.0	<2.0
1,1-Dichloroethylene			6.9	<20	<20	<10	<10	7.7	<2.0
cis-1,2-Dichloroethylene			110	130	130	180	110	130	22
trans-1,2-Dichloroethylene			<10	<20	<20	<10	<10	<1.0	<2.0
1,2-Dichloropropane			<10	<20	<20	<10	<10	<1.0	<2.0
1,4-Dioxane			<1200	<5000	<5000	<2500	<2500	<250	<500
Ethylbenzene			<5.0	<20	<20	<10	<10	<1.0	<2.0
2-Hexanone			<25	<100	<100	<50	<50	<5.0	<10
4-Isopropyltoluene			<20	<40	<40	<20	<20	<2.0	<4.0
Methyl tert-butyl ether			<10	<40	<40	<20	<20	2.9	<4.0
Methylene chloride			<20	<40	<40	<20	<20	<2.0	<4.0
Naphthalene			<10	<40	<40	<20	<20	<2.0	<4.0
Tert-amyl methyl ether			<10	<40	<40	<20	<20	<2.0	<4.0
1,1,1,2-Tetrachloroethane			<10	<20	<20	<10	<10	<1.0	<2.0
Tetrachloroethylene (PCE)			820	1600	1700	1200	1700	1600	170
Tetrahydrofuran			<10	<40	<40	<20	<20	<2.0	<4.0
Toluene			<5.0	<20	<20	<10	<10	<1.0	<2.0
1,1,1-Trichloroethane (TCA)			<5.0	<20	<20	<10	<10	<1.0	<2.0
1,1,2-Trichloroethane			<10	<20	<20	<10	<10	<1.0	<2.0
Trichloroethylene (TCE)			130	220	210	160	170	200	41
Vinyl chloride			<5.0	<20	<20	<10	<10	1.6	<2.0
m,p-Xylene			<10	<40	<40	<20	<20	<2.0	<4.0
o-Xylene			<5.0	<20	<20	<10	<10	<1.0	<2.0
Total Xylene			<5.0	<20	<20	<10	<10	<1.0	<2.0
Metals (Total)	6010B	µg/l	NT	NT	NT	NT	NT	NT	NT
Arsenic									
Iron									
Manganese	6010C	µg/l	NT	NT	NT	NT	NT	NT	NT
Iron									
Others	8015	µg/l	NT	NT	NT	NT	NT	NT	NT
Methane									
Ethane									
Ethylene									
Alkalinity			E310.1						
Chloride			E325.3						
Chlorine, Total Residual			E330.4						
Iron, Ferrous			3500FE B						
Nitrate & Nitrite as N			E353.2						
Nitrogen, Nitrate			E353.2						
Nitrogen, Nitrite			E354.1						
Sodium			6010C						
Sulfate			E375.4						
Sulfide			E376.1						
Surfactants			E425.1						
Total Organic Carbon			E415.1						

- General Notes:**
- Analytes detected in at least one sample are reported here. For a complete list of analytes refer to the laboratory data reports.
 - ft bgs = feet below ground surface.
 - µg/l = micrograms per liter.
 - *< = The analyte was not detected at a concentration above the specified reporting limit.
 - SHA = Sanborn Head & Associates.
 - FD = Field Duplicate Sample.
 - NT = Not Tested.
 - * = micrograms CaCO3 per liter

- Qualifying Notes:**
- B The analyte found in associated method blank.
 - C+ The result has a high bias due to surrogate recovery above upper control limits.
 - E The value exceeds the calibration range.
 - F+ The result has a high bias due to matrix spike recovery above upper control limits.
 - F- The result has a low bias due to matrix spike recovery below lower control limits.
 - G The result is estimated due to duplicate precision outside control limits.
 - J The reported result is below the laboratory reporting limit and is estimated.
 - J+ The reported result is estimated.
 - K- The result has a low bias due to blank spike or laboratory control sample recovery below lower control limits.
 - K+ The result has a high bias due to blank spike or laboratory control sample recovery above upper control limits.
 - R The result is rejected due to gross exceedence of minimum response factor criteria.

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-04 D
 Client ID: 045163-GEO-4
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 12:05
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/09/24 12:36

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	50	--	25
1,1-Dichloroethane	ND		ug/l	25	--	25
Chloroform	ND		ug/l	25	--	25
Carbon tetrachloride	ND		ug/l	25	--	25
1,2-Dichloropropane	ND		ug/l	25	--	25
Dibromochloromethane	ND		ug/l	25	--	25
1,1,2-Trichloroethane	ND		ug/l	25	--	25
Tetrachloroethene	3600		ug/l	25	--	25
Chlorobenzene	ND		ug/l	25	--	25
Trichlorofluoromethane	ND		ug/l	50	--	25
1,2-Dichloroethane	ND		ug/l	25	--	25
1,1,1-Trichloroethane	ND		ug/l	25	--	25
Bromodichloromethane	ND		ug/l	25	--	25
trans-1,3-Dichloropropene	ND		ug/l	10	--	25
cis-1,3-Dichloropropene	ND		ug/l	10	--	25
1,3-Dichloropropene, Total	ND		ug/l	10	--	25
1,1-Dichloropropene	ND		ug/l	50	--	25
Bromoform	ND		ug/l	50	--	25
1,1,2,2-Tetrachloroethane	ND		ug/l	25	--	25
Benzene	ND		ug/l	12	--	25
Toluene	ND		ug/l	25	--	25
Ethylbenzene	ND		ug/l	25	--	25
Chloromethane	ND		ug/l	50	--	25
Bromomethane	ND		ug/l	50	--	25
Vinyl chloride	ND		ug/l	25	--	25
Chloroethane	ND		ug/l	50	--	25
1,1-Dichloroethene	ND		ug/l	25	--	25
trans-1,2-Dichloroethene	ND		ug/l	25	--	25

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-04 D
 Client ID: 045163-GEO-4
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 12:05
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	26		ug/l	25	--	25
1,2-Dichlorobenzene	ND		ug/l	25	--	25
1,3-Dichlorobenzene	ND		ug/l	25	--	25
1,4-Dichlorobenzene	ND		ug/l	25	--	25
Methyl tert butyl ether	ND		ug/l	50	--	25
p/m-Xylene	ND		ug/l	50	--	25
o-Xylene	ND		ug/l	25	--	25
Xylenes, Total	ND		ug/l	25	--	25
cis-1,2-Dichloroethene	ND		ug/l	25	--	25
1,2-Dichloroethene, Total	ND		ug/l	25	--	25
Dibromomethane	ND		ug/l	50	--	25
1,2,3-Trichloropropane	ND		ug/l	50	--	25
Styrene	ND		ug/l	25	--	25
Dichlorodifluoromethane	ND		ug/l	50	--	25
Acetone	ND		ug/l	120	--	25
Carbon disulfide	ND		ug/l	50	--	25
Methyl ethyl ketone	ND		ug/l	120	--	25
Methyl isobutyl ketone	ND		ug/l	120	--	25
2-Hexanone	ND		ug/l	120	--	25
Bromochloromethane	ND		ug/l	50	--	25
Tetrahydrofuran	ND		ug/l	50	--	25
2,2-Dichloropropane	ND		ug/l	50	--	25
1,2-Dibromoethane	ND		ug/l	50	--	25
1,3-Dichloropropane	ND		ug/l	50	--	25
1,1,1,2-Tetrachloroethane	ND		ug/l	25	--	25
Bromobenzene	ND		ug/l	50	--	25
n-Butylbenzene	ND		ug/l	50	--	25
sec-Butylbenzene	ND		ug/l	50	--	25
tert-Butylbenzene	ND		ug/l	50	--	25
o-Chlorotoluene	ND		ug/l	50	--	25
p-Chlorotoluene	ND		ug/l	50	--	25
1,2-Dibromo-3-chloropropane	ND		ug/l	50	--	25
Hexachlorobutadiene	ND		ug/l	15	--	25
Isopropylbenzene	ND		ug/l	50	--	25
p-Isopropyltoluene	ND		ug/l	50	--	25
Naphthalene	ND		ug/l	50	--	25
n-Propylbenzene	ND		ug/l	50	--	25

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-04 D
 Client ID: 045163-GEO-4
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 12:05
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	50	--	25
1,2,4-Trichlorobenzene	ND		ug/l	50	--	25
1,3,5-Trimethylbenzene	ND		ug/l	50	--	25
1,2,4-Trimethylbenzene	ND		ug/l	50	--	25
Diethyl ether	ND		ug/l	50	--	25
Diisopropyl Ether	ND		ug/l	50	--	25
Ethyl-Tert-Butyl-Ether	ND		ug/l	50	--	25
Tertiary-Amyl Methyl Ether	ND		ug/l	50	--	25
1,4-Dioxane	ND		ug/l	6200	--	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	106		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-11
 Client ID: 045163-GEO-5
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 12:45
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 141,8260D
 Analytical Date: 04/09/24 06:50
 Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	100		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-11
 Client ID: 045163-GEO-5
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 12:45
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	2.0		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2418455-11**Date Collected:** 04/03/24 12:45**Client ID:** 045163-GEO-5**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	100		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-12 D
 Client ID: 045163-GEO-6
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 13:25
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/09/24 08:12

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	20	--	10
1,1-Dichloroethane	ND		ug/l	10	--	10
Chloroform	ND		ug/l	10	--	10
Carbon tetrachloride	ND		ug/l	10	--	10
1,2-Dichloropropane	ND		ug/l	10	--	10
Dibromochloromethane	ND		ug/l	10	--	10
1,1,2-Trichloroethane	ND		ug/l	10	--	10
Tetrachloroethene	1900		ug/l	10	--	10
Chlorobenzene	ND		ug/l	10	--	10
Trichlorofluoromethane	ND		ug/l	20	--	10
1,2-Dichloroethane	ND		ug/l	10	--	10
1,1,1-Trichloroethane	ND		ug/l	10	--	10
Bromodichloromethane	ND		ug/l	10	--	10
trans-1,3-Dichloropropene	ND		ug/l	4.0	--	10
cis-1,3-Dichloropropene	ND		ug/l	4.0	--	10
1,3-Dichloropropene, Total	ND		ug/l	4.0	--	10
1,1-Dichloropropene	ND		ug/l	20	--	10
Bromoform	ND		ug/l	20	--	10
1,1,2,2-Tetrachloroethane	ND		ug/l	10	--	10
Benzene	ND		ug/l	5.0	--	10
Toluene	ND		ug/l	10	--	10
Ethylbenzene	ND		ug/l	10	--	10
Chloromethane	ND		ug/l	20	--	10
Bromomethane	ND		ug/l	20	--	10
Vinyl chloride	ND		ug/l	10	--	10
Chloroethane	ND		ug/l	20	--	10
1,1-Dichloroethene	ND		ug/l	10	--	10
trans-1,2-Dichloroethene	ND		ug/l	10	--	10

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-12 D
 Client ID: 045163-GEO-6
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 13:25
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	37		ug/l	10	--	10
1,2-Dichlorobenzene	ND		ug/l	10	--	10
1,3-Dichlorobenzene	ND		ug/l	10	--	10
1,4-Dichlorobenzene	ND		ug/l	10	--	10
Methyl tert butyl ether	ND		ug/l	20	--	10
p/m-Xylene	ND		ug/l	20	--	10
o-Xylene	ND		ug/l	10	--	10
Xylenes, Total	ND		ug/l	10	--	10
cis-1,2-Dichloroethene	ND		ug/l	10	--	10
1,2-Dichloroethene, Total	ND		ug/l	10	--	10
Dibromomethane	ND		ug/l	20	--	10
1,2,3-Trichloropropane	ND		ug/l	20	--	10
Styrene	ND		ug/l	10	--	10
Dichlorodifluoromethane	ND		ug/l	20	--	10
Acetone	ND		ug/l	50	--	10
Carbon disulfide	ND		ug/l	20	--	10
Methyl ethyl ketone	ND		ug/l	50	--	10
Methyl isobutyl ketone	ND		ug/l	50	--	10
2-Hexanone	ND		ug/l	50	--	10
Bromochloromethane	ND		ug/l	20	--	10
Tetrahydrofuran	ND		ug/l	20	--	10
2,2-Dichloropropane	ND		ug/l	20	--	10
1,2-Dibromoethane	ND		ug/l	20	--	10
1,3-Dichloropropane	ND		ug/l	20	--	10
1,1,1,2-Tetrachloroethane	ND		ug/l	10	--	10
Bromobenzene	ND		ug/l	20	--	10
n-Butylbenzene	ND		ug/l	20	--	10
sec-Butylbenzene	ND		ug/l	20	--	10
tert-Butylbenzene	ND		ug/l	20	--	10
o-Chlorotoluene	ND		ug/l	20	--	10
p-Chlorotoluene	ND		ug/l	20	--	10
1,2-Dibromo-3-chloropropane	ND		ug/l	20	--	10
Hexachlorobutadiene	ND		ug/l	6.0	--	10
Isopropylbenzene	ND		ug/l	20	--	10
p-Isopropyltoluene	ND		ug/l	20	--	10
Naphthalene	ND		ug/l	20	--	10
n-Propylbenzene	ND		ug/l	20	--	10

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-12 D
 Client ID: 045163-GEO-6
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 13:25
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	20	--	10
1,2,4-Trichlorobenzene	ND		ug/l	20	--	10
1,3,5-Trimethylbenzene	ND		ug/l	20	--	10
1,2,4-Trimethylbenzene	ND		ug/l	20	--	10
Diethyl ether	ND		ug/l	20	--	10
Diisopropyl Ether	ND		ug/l	20	--	10
Ethyl-Tert-Butyl-Ether	ND		ug/l	20	--	10
Tertiary-Amyl Methyl Ether	ND		ug/l	20	--	10
1,4-Dioxane	ND		ug/l	2500	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	103		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-06
 Client ID: 045163-MW102
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 10:35
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 141,8260D
 Analytical Date: 04/08/24 11:46
 Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	13		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-06
 Client ID: 045163-MW102
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 10:35
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	1.3		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2418455-06**Date Collected:** 04/03/24 10:35**Client ID:** 045163-MW102**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	117		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-10
 Client ID: 045163-MW103
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 11:35
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/08/24 12:32

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	43		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-10
 Client ID: 045163-MW103
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 11:35
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	3.5		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2418455-10**Date Collected:** 04/03/24 11:35**Client ID:** 045163-MW103**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	120		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	115		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2418455-01**Date Collected:** 04/03/24 09:10**Client ID:** 045163-MW106**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	115		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-01
 Client ID: 045163-MW107
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 10:10
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 141,8260D
 Analytical Date: 04/05/24 07:00
 Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	1.1		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-01
 Client ID: 045163-MW107
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 10:10
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-01**Date Collected:** 04/02/24 10:10**Client ID:** 045163-MW107**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	111		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-12
 Client ID: 045163-MW108
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 14:15
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/05/24 10:02

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-12**Date Collected:** 04/02/24 14:15**Client ID:** 045163-MW108**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-12**Date Collected:** 04/02/24 14:15**Client ID:** 045163-MW108**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	113		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-01
 Client ID: 045163-MW109
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 08:45
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/09/24 06:14

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	12		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS****Lab ID:** L2418450-01**Date Collected:** 04/04/24 08:45**Client ID:** 045163-MW109**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS****Lab ID:** L2418450-01**Date Collected:** 04/04/24 08:45**Client ID:** 045163-MW109**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	111		70-130

Project Name: 50 TUFTS STREET**Project Number:** 045163**Lab Number:** L2417821**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-02
Client ID: 045163-MW112A
Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 11:55
Date Received: 04/02/24
Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 117,-

Analytical Date: 04/04/24 09:16

Analyst: APR

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	4.64		ug/l	3.00	--	1	A
Ethene	3.91		ug/l	3.00	--	1	A
Ethane	ND		ug/l	3.00	--	1	A

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-02 D
 Client ID: 045163-MW112A
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 11:55
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/08/24 06:28

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	--	2.5
1,1-Dichloroethane	28		ug/l	2.5	--	2.5
Chloroform	ND		ug/l	2.5	--	2.5
Carbon tetrachloride	ND		ug/l	2.5	--	2.5
1,2-Dichloropropane	ND		ug/l	2.5	--	2.5
Dibromochloromethane	ND		ug/l	2.5	--	2.5
1,1,2-Trichloroethane	ND		ug/l	2.5	--	2.5
Tetrachloroethene	370		ug/l	2.5	--	2.5
Chlorobenzene	ND		ug/l	2.5	--	2.5
Trichlorofluoromethane	ND		ug/l	5.0	--	2.5
1,2-Dichloroethane	ND		ug/l	2.5	--	2.5
1,1,1-Trichloroethane	3.5		ug/l	2.5	--	2.5
Bromodichloromethane	ND		ug/l	2.5	--	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.0	--	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.0	--	2.5
1,3-Dichloropropene, Total	ND		ug/l	1.0	--	2.5
1,1-Dichloropropene	ND		ug/l	5.0	--	2.5
Bromoform	ND		ug/l	5.0	--	2.5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5
Benzene	ND		ug/l	1.2	--	2.5
Toluene	ND		ug/l	2.5	--	2.5
Ethylbenzene	ND		ug/l	2.5	--	2.5
Chloromethane	ND		ug/l	5.0	--	2.5
Bromomethane	ND		ug/l	5.0	--	2.5
Vinyl chloride	12		ug/l	2.5	--	2.5
Chloroethane	ND		ug/l	5.0	--	2.5
1,1-Dichloroethene	46		ug/l	2.5	--	2.5
trans-1,2-Dichloroethene	ND		ug/l	2.5	--	2.5

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-02 D
 Client ID: 045163-MW112A
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 11:55
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	84		ug/l	2.5	--	2.5
1,2-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,3-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,4-Dichlorobenzene	ND		ug/l	2.5	--	2.5
Methyl tert butyl ether	5.6		ug/l	5.0	--	2.5
p/m-Xylene	ND		ug/l	5.0	--	2.5
o-Xylene	ND		ug/l	2.5	--	2.5
Xylenes, Total	ND		ug/l	2.5	--	2.5
cis-1,2-Dichloroethene	100		ug/l	2.5	--	2.5
1,2-Dichloroethene, Total	100		ug/l	2.5	--	2.5
Dibromomethane	ND		ug/l	5.0	--	2.5
1,2,3-Trichloropropane	ND		ug/l	5.0	--	2.5
Styrene	ND		ug/l	2.5	--	2.5
Dichlorodifluoromethane	ND		ug/l	5.0	--	2.5
Acetone	ND		ug/l	12	--	2.5
Carbon disulfide	ND		ug/l	5.0	--	2.5
Methyl ethyl ketone	ND		ug/l	12	--	2.5
Methyl isobutyl ketone	ND		ug/l	12	--	2.5
2-Hexanone	ND		ug/l	12	--	2.5
Bromochloromethane	ND		ug/l	5.0	--	2.5
Tetrahydrofuran	ND		ug/l	5.0	--	2.5
2,2-Dichloropropane	ND		ug/l	5.0	--	2.5
1,2-Dibromoethane	ND		ug/l	5.0	--	2.5
1,3-Dichloropropane	ND		ug/l	5.0	--	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5
Bromobenzene	ND		ug/l	5.0	--	2.5
n-Butylbenzene	ND		ug/l	5.0	--	2.5
sec-Butylbenzene	ND		ug/l	5.0	--	2.5
tert-Butylbenzene	ND		ug/l	5.0	--	2.5
o-Chlorotoluene	ND		ug/l	5.0	--	2.5
p-Chlorotoluene	ND		ug/l	5.0	--	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	--	2.5
Hexachlorobutadiene	ND		ug/l	1.5	--	2.5
Isopropylbenzene	ND		ug/l	5.0	--	2.5
p-Isopropyltoluene	ND		ug/l	5.0	--	2.5
Naphthalene	ND		ug/l	5.0	--	2.5
n-Propylbenzene	ND		ug/l	5.0	--	2.5

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-02 D
 Client ID: 045163-MW112A
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 11:55
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	5.0	--	2.5
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	2.5
1,3,5-Trimethylbenzene	ND		ug/l	5.0	--	2.5
1,2,4-Trimethylbenzene	ND		ug/l	5.0	--	2.5
Diethyl ether	ND		ug/l	5.0	--	2.5
Diisopropyl Ether	ND		ug/l	5.0	--	2.5
Ethyl-Tert-Butyl-Ether	ND		ug/l	5.0	--	2.5
Tertiary-Amyl Methyl Ether	ND		ug/l	5.0	--	2.5
1,4-Dioxane	ND		ug/l	620	--	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	98		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-02

Date Collected: 04/02/24 11:55

Client ID: 045163-MW112A

Date Received: 04/02/24

Sample Location: SOMERVILLE, MASSACHUSETTS

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Manganese, Total	2.02		mg/l	0.0100	--	1	04/05/24 15:42	04/08/24 21:18	EPA 3005A	97,6010D	JTS



Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2417821

Report Date: 04/10/24

SAMPLE RESULTS

Lab ID: L2417821-02

Client ID: 045163-MW112A

Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 11:55

Date Received: 04/02/24

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	245.		mg CaCO3/L	2.00	NA	1	-	04/08/24 08:22	121,2320B	MKT
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	04/03/24 11:30	121,4500CL-D	JBB
Chloride	640		mg/l	10	--	10	-	04/04/24 22:53	1,9251	TLH
Nitrogen, Nitrate	0.207		mg/l	0.100	--	1	-	04/03/24 04:57	121,4500NO3-F	KAF
Nitrogen, Nitrate/Nitrite	0.21		mg/l	0.10	--	1	-	04/03/24 04:57	121,4500NO3-F	KAF
Total Nitrogen	ND		mg/l	0.30	--	1	-	04/09/24 16:00	107,-	MRM
Nitrogen, Total Kjeldahl	ND		mg/l	0.300	--	1	04/05/24 23:30	04/08/24 17:39	121,4500NH3-H	JRO
Sulfate	78.		mg/l	25	--	2.5	04/09/24 14:21	04/09/24 14:21	1,9038	SAD
Total Organic Carbon	ND		mg/l	0.50	--	1	-	04/04/24 02:59	1,9060A	DEW
Surfactants, MBAS	ND		mg/l	0.050	--	1	04/03/24 04:45	04/03/24 08:49	121,5540C	CAR
Iron, Ferrous	ND		mg/l	0.50	--	1	-	04/03/24 11:26	121,3500FE-B	JBB





Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

April 10, 2024

FOR: Attn: Graham Parker
Alpha Analytical Lab
8 Walkup Drive
Westborough, MA 01581

Sample Information

Matrix: WATER
Location Code: ALPHA
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: SW
Analyzed by: see "By" below

Date

04/02/24
04/03/24

Time

11:55
11:00

Laboratory Data

SDG ID: GCQ41553
Phoenix ID: CQ41553

Project ID: L2417821
Client ID: 045163-MW-112A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Sulfide	< 0.05	0.05	mg/L	1	04/09/24	GD	SM4500S-D-11

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

April 10, 2024

Reviewed and Released by: Sarah Bell, Project Manager

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-07 D
 Client ID: 045163-MW116
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 11:20
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/09/24 07:17

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	--	2.5
1,1-Dichloroethane	21		ug/l	2.5	--	2.5
Chloroform	ND		ug/l	2.5	--	2.5
Carbon tetrachloride	ND		ug/l	2.5	--	2.5
1,2-Dichloropropane	ND		ug/l	2.5	--	2.5
Dibromochloromethane	ND		ug/l	2.5	--	2.5
1,1,2-Trichloroethane	ND		ug/l	2.5	--	2.5
Tetrachloroethene	310		ug/l	2.5	--	2.5
Chlorobenzene	ND		ug/l	2.5	--	2.5
Trichlorofluoromethane	ND		ug/l	5.0	--	2.5
1,2-Dichloroethane	ND		ug/l	2.5	--	2.5
1,1,1-Trichloroethane	2.6		ug/l	2.5	--	2.5
Bromodichloromethane	ND		ug/l	2.5	--	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.0	--	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.0	--	2.5
1,3-Dichloropropene, Total	ND		ug/l	1.0	--	2.5
1,1-Dichloropropene	ND		ug/l	5.0	--	2.5
Bromoform	ND		ug/l	5.0	--	2.5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5
Benzene	ND		ug/l	1.2	--	2.5
Toluene	ND		ug/l	2.5	--	2.5
Ethylbenzene	ND		ug/l	2.5	--	2.5
Chloromethane	ND		ug/l	5.0	--	2.5
Bromomethane	ND		ug/l	5.0	--	2.5
Vinyl chloride	4.5		ug/l	2.5	--	2.5
Chloroethane	ND		ug/l	5.0	--	2.5
1,1-Dichloroethene	25		ug/l	2.5	--	2.5
trans-1,2-Dichloroethene	ND		ug/l	2.5	--	2.5

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-07 D
 Client ID: 045163-MW116
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 11:20
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	86		ug/l	2.5	--	2.5
1,2-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,3-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,4-Dichlorobenzene	ND		ug/l	2.5	--	2.5
Methyl tert butyl ether	ND		ug/l	5.0	--	2.5
p/m-Xylene	ND		ug/l	5.0	--	2.5
o-Xylene	ND		ug/l	2.5	--	2.5
Xylenes, Total	ND		ug/l	2.5	--	2.5
cis-1,2-Dichloroethene	56		ug/l	2.5	--	2.5
1,2-Dichloroethene, Total	56		ug/l	2.5	--	2.5
Dibromomethane	ND		ug/l	5.0	--	2.5
1,2,3-Trichloropropane	ND		ug/l	5.0	--	2.5
Styrene	ND		ug/l	2.5	--	2.5
Dichlorodifluoromethane	ND		ug/l	5.0	--	2.5
Acetone	ND		ug/l	12	--	2.5
Carbon disulfide	ND		ug/l	5.0	--	2.5
Methyl ethyl ketone	ND		ug/l	12	--	2.5
Methyl isobutyl ketone	ND		ug/l	12	--	2.5
2-Hexanone	ND		ug/l	12	--	2.5
Bromochloromethane	ND		ug/l	5.0	--	2.5
Tetrahydrofuran	ND		ug/l	5.0	--	2.5
2,2-Dichloropropane	ND		ug/l	5.0	--	2.5
1,2-Dibromoethane	ND		ug/l	5.0	--	2.5
1,3-Dichloropropane	ND		ug/l	5.0	--	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5
Bromobenzene	ND		ug/l	5.0	--	2.5
n-Butylbenzene	ND		ug/l	5.0	--	2.5
sec-Butylbenzene	ND		ug/l	5.0	--	2.5
tert-Butylbenzene	ND		ug/l	5.0	--	2.5
o-Chlorotoluene	ND		ug/l	5.0	--	2.5
p-Chlorotoluene	ND		ug/l	5.0	--	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	--	2.5
Hexachlorobutadiene	ND		ug/l	1.5	--	2.5
Isopropylbenzene	ND		ug/l	5.0	--	2.5
p-Isopropyltoluene	ND		ug/l	5.0	--	2.5
Naphthalene	ND		ug/l	5.0	--	2.5
n-Propylbenzene	ND		ug/l	5.0	--	2.5

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-07 D
 Client ID: 045163-MW116
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 11:20
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	5.0	--	2.5
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	2.5
1,3,5-Trimethylbenzene	ND		ug/l	5.0	--	2.5
1,2,4-Trimethylbenzene	ND		ug/l	5.0	--	2.5
Diethyl ether	ND		ug/l	5.0	--	2.5
Diisopropyl Ether	ND		ug/l	5.0	--	2.5
Ethyl-Tert-Butyl-Ether	ND		ug/l	5.0	--	2.5
Tertiary-Amyl Methyl Ether	ND		ug/l	5.0	--	2.5
1,4-Dioxane	ND		ug/l	620	--	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	99		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-08 D
 Client ID: 045163-MW900
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 11:22
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/09/24 07:45

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	4.0	--	2
1,1-Dichloroethane	22		ug/l	2.0	--	2
Chloroform	ND		ug/l	2.0	--	2
Carbon tetrachloride	ND		ug/l	2.0	--	2
1,2-Dichloropropane	ND		ug/l	2.0	--	2
Dibromochloromethane	ND		ug/l	2.0	--	2
1,1,2-Trichloroethane	ND		ug/l	2.0	--	2
Tetrachloroethene	340		ug/l	2.0	--	2
Chlorobenzene	ND		ug/l	2.0	--	2
Trichlorofluoromethane	ND		ug/l	4.0	--	2
1,2-Dichloroethane	ND		ug/l	2.0	--	2
1,1,1-Trichloroethane	2.7		ug/l	2.0	--	2
Bromodichloromethane	ND		ug/l	2.0	--	2
trans-1,3-Dichloropropene	ND		ug/l	0.80	--	2
cis-1,3-Dichloropropene	ND		ug/l	0.80	--	2
1,3-Dichloropropene, Total	ND		ug/l	0.80	--	2
1,1-Dichloropropene	ND		ug/l	4.0	--	2
Bromoform	ND		ug/l	4.0	--	2
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	--	2
Benzene	ND		ug/l	1.0	--	2
Toluene	ND		ug/l	2.0	--	2
Ethylbenzene	ND		ug/l	2.0	--	2
Chloromethane	ND		ug/l	4.0	--	2
Bromomethane	ND		ug/l	4.0	--	2
Vinyl chloride	4.5		ug/l	2.0	--	2
Chloroethane	ND		ug/l	4.0	--	2
1,1-Dichloroethene	26		ug/l	2.0	--	2
trans-1,2-Dichloroethene	ND		ug/l	2.0	--	2

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-08 D
 Client ID: 045163-MW900
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 11:22
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	90		ug/l	2.0	--	2
1,2-Dichlorobenzene	ND		ug/l	2.0	--	2
1,3-Dichlorobenzene	ND		ug/l	2.0	--	2
1,4-Dichlorobenzene	ND		ug/l	2.0	--	2
Methyl tert butyl ether	ND		ug/l	4.0	--	2
p/m-Xylene	ND		ug/l	4.0	--	2
o-Xylene	ND		ug/l	2.0	--	2
Xylenes, Total	ND		ug/l	2.0	--	2
cis-1,2-Dichloroethene	57		ug/l	2.0	--	2
1,2-Dichloroethene, Total	57		ug/l	2.0	--	2
Dibromomethane	ND		ug/l	4.0	--	2
1,2,3-Trichloropropane	ND		ug/l	4.0	--	2
Styrene	ND		ug/l	2.0	--	2
Dichlorodifluoromethane	ND		ug/l	4.0	--	2
Acetone	ND		ug/l	10	--	2
Carbon disulfide	ND		ug/l	4.0	--	2
Methyl ethyl ketone	ND		ug/l	10	--	2
Methyl isobutyl ketone	ND		ug/l	10	--	2
2-Hexanone	ND		ug/l	10	--	2
Bromochloromethane	ND		ug/l	4.0	--	2
Tetrahydrofuran	ND		ug/l	4.0	--	2
2,2-Dichloropropane	ND		ug/l	4.0	--	2
1,2-Dibromoethane	ND		ug/l	4.0	--	2
1,3-Dichloropropane	ND		ug/l	4.0	--	2
1,1,1,2-Tetrachloroethane	ND		ug/l	2.0	--	2
Bromobenzene	ND		ug/l	4.0	--	2
n-Butylbenzene	ND		ug/l	4.0	--	2
sec-Butylbenzene	ND		ug/l	4.0	--	2
tert-Butylbenzene	ND		ug/l	4.0	--	2
o-Chlorotoluene	ND		ug/l	4.0	--	2
p-Chlorotoluene	ND		ug/l	4.0	--	2
1,2-Dibromo-3-chloropropane	ND		ug/l	4.0	--	2
Hexachlorobutadiene	ND		ug/l	1.2	--	2
Isopropylbenzene	ND		ug/l	4.0	--	2
p-Isopropyltoluene	ND		ug/l	4.0	--	2
Naphthalene	ND		ug/l	4.0	--	2
n-Propylbenzene	ND		ug/l	4.0	--	2

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-08 D
 Client ID: 045163-MW900
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 11:22
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	4.0	--	2
1,2,4-Trichlorobenzene	ND		ug/l	4.0	--	2
1,3,5-Trimethylbenzene	ND		ug/l	4.0	--	2
1,2,4-Trimethylbenzene	ND		ug/l	4.0	--	2
Diethyl ether	ND		ug/l	4.0	--	2
Diisopropyl Ether	ND		ug/l	4.0	--	2
Ethyl-Tert-Butyl-Ether	ND		ug/l	4.0	--	2
Tertiary-Amyl Methyl Ether	ND		ug/l	4.0	--	2
1,4-Dioxane	ND		ug/l	500	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	98		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-04
 Client ID: 045163-MW118D
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 10:20
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/05/24 07:23

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	22		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	2.2		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-04
 Client ID: 045163-MW118D
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 10:20
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	2.5		ug/l	1.0	--	1
1,2-Dichloroethene, Total	2.5		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET

Lab Number: L2417821

Project Number: 045163

Report Date: 04/10/24

SAMPLE RESULTS

Lab ID: L2417821-04

Date Collected: 04/02/24 10:20

Client ID: 045163-MW118D

Date Received: 04/02/24

Sample Location: SOMERVILLE, MASSACHUSETTS

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	110		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-03
 Client ID: 045163-MW118S
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 10:00
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/08/24 06:01

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-03**Date Collected:** 04/02/24 10:00**Client ID:** 045163-MW118S**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	2.8		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET

Lab Number: L2417821

Project Number: 045163

Report Date: 04/10/24

SAMPLE RESULTS

Lab ID: L2417821-03

Date Collected: 04/02/24 10:00

Client ID: 045163-MW118S

Date Received: 04/02/24

Sample Location: SOMERVILLE, MASSACHUSETTS

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	119		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-08
 Client ID: 045163-MW118T
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 12:20
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 141,8260D
 Analytical Date: 04/05/24 08:54
 Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	9.6		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-08
 Client ID: 045163-MW118T
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 12:20
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-08**Date Collected:** 04/02/24 12:20**Client ID:** 045163-MW118T**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	112		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-09
 Client ID: 045163-MW119S
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 12:40
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/05/24 09:17

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-09
 Client ID: 045163-MW119S
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 12:40
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-09**Date Collected:** 04/02/24 12:40**Client ID:** 045163-MW119S**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	112		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-10
 Client ID: 045163-MW119T
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 12:50
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/05/24 09:40

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	2.2		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	5.2		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-10
 Client ID: 045163-MW119T
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 12:50
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	3.5		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-10**Date Collected:** 04/02/24 12:50**Client ID:** 045163-MW119T**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	111		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-04
 Client ID: 045163-MW120D
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 09:40
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/08/24 11:00

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	1.6		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	4.7		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	1.2		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-04
 Client ID: 045163-MW120D
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 09:40
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	2.0		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2418455-04**Date Collected:** 04/03/24 09:40**Client ID:** 045163-MW120D**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	118		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418092**Project Number:** 045163**Report Date:** 04/09/24**SAMPLE RESULTS**

Lab ID: L2418092-01
 Client ID: 045163-MW120S
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 15:15
 Date Received: 04/03/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/05/24 13:01

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418092**Project Number:** 045163**Report Date:** 04/09/24**SAMPLE RESULTS**

Lab ID: L2418092-01
 Client ID: 045163-MW120S
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 15:15
 Date Received: 04/03/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418092**Project Number:** 045163**Report Date:** 04/09/24**SAMPLE RESULTS****Lab ID:** L2418092-01**Date Collected:** 04/02/24 15:15**Client ID:** 045163-MW120S**Date Received:** 04/03/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	120		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-02
 Client ID: 045163-MW121D
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 09:20
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/08/24 10:15

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	2.1		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	2.0		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-02
 Client ID: 045163-MW121D
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 09:20
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	2.8		ug/l	1.0	--	1
1,2-Dichloroethene, Total	2.8		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2418455-02**Date Collected:** 04/03/24 09:20**Client ID:** 045163-MW121D**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	117		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-03
 Client ID: 045163-MW121S
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 09:25
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/08/24 10:37

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-03
 Client ID: 045163-MW121S
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 09:25
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2418455-03**Date Collected:** 04/03/24 09:25**Client ID:** 045163-MW121S**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	118		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-05 D2
 Client ID: 045163-MW122
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 08:30
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 141,8260D
 Analytical Date: 04/10/24 10:40
 Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	4.0	--	2
1,1-Dichloroethane	3.1		ug/l	2.0	--	2
Chloroform	ND		ug/l	2.0	--	2
Carbon tetrachloride	ND		ug/l	2.0	--	2
1,2-Dichloropropane	ND		ug/l	2.0	--	2
Dibromochloromethane	ND		ug/l	2.0	--	2
1,1,2-Trichloroethane	ND		ug/l	2.0	--	2
Tetrachloroethene	490	E	ug/l	2.0	--	2
Chlorobenzene	ND		ug/l	2.0	--	2
Trichlorofluoromethane	ND		ug/l	4.0	--	2
1,2-Dichloroethane	ND		ug/l	2.0	--	2
1,1,1-Trichloroethane	ND		ug/l	2.0	--	2
Bromodichloromethane	ND		ug/l	2.0	--	2
trans-1,3-Dichloropropene	ND		ug/l	0.80	--	2
cis-1,3-Dichloropropene	ND		ug/l	0.80	--	2
1,3-Dichloropropene, Total	ND		ug/l	0.80	--	2
1,1-Dichloropropene	ND		ug/l	4.0	--	2
Bromoform	ND		ug/l	4.0	--	2
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	--	2
Benzene	ND		ug/l	1.0	--	2
Toluene	ND		ug/l	2.0	--	2
Ethylbenzene	ND		ug/l	2.0	--	2
Chloromethane	ND		ug/l	4.0	--	2
Bromomethane	ND		ug/l	4.0	--	2
Vinyl chloride	ND		ug/l	2.0	--	2
Chloroethane	ND		ug/l	4.0	--	2
1,1-Dichloroethene	ND		ug/l	2.0	--	2
trans-1,2-Dichloroethene	ND		ug/l	2.0	--	2

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-05 D2
 Client ID: 045163-MW122
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 08:30
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	41		ug/l	2.0	--	2
1,2-Dichlorobenzene	ND		ug/l	2.0	--	2
1,3-Dichlorobenzene	ND		ug/l	2.0	--	2
1,4-Dichlorobenzene	ND		ug/l	2.0	--	2
Methyl tert butyl ether	ND		ug/l	4.0	--	2
p/m-Xylene	ND		ug/l	4.0	--	2
o-Xylene	ND		ug/l	2.0	--	2
Xylenes, Total	ND		ug/l	2.0	--	2
cis-1,2-Dichloroethene	22		ug/l	2.0	--	2
1,2-Dichloroethene, Total	22		ug/l	2.0	--	2
Dibromomethane	ND		ug/l	4.0	--	2
1,2,3-Trichloropropane	ND		ug/l	4.0	--	2
Styrene	ND		ug/l	2.0	--	2
Dichlorodifluoromethane	ND		ug/l	4.0	--	2
Acetone	ND		ug/l	10	--	2
Carbon disulfide	ND		ug/l	4.0	--	2
Methyl ethyl ketone	ND		ug/l	10	--	2
Methyl isobutyl ketone	ND		ug/l	10	--	2
2-Hexanone	ND		ug/l	10	--	2
Bromochloromethane	ND		ug/l	4.0	--	2
Tetrahydrofuran	ND		ug/l	4.0	--	2
2,2-Dichloropropane	ND		ug/l	4.0	--	2
1,2-Dibromoethane	ND		ug/l	4.0	--	2
1,3-Dichloropropane	ND		ug/l	4.0	--	2
1,1,1,2-Tetrachloroethane	ND		ug/l	2.0	--	2
Bromobenzene	ND		ug/l	4.0	--	2
n-Butylbenzene	ND		ug/l	4.0	--	2
sec-Butylbenzene	ND		ug/l	4.0	--	2
tert-Butylbenzene	ND		ug/l	4.0	--	2
o-Chlorotoluene	ND		ug/l	4.0	--	2
p-Chlorotoluene	ND		ug/l	4.0	--	2
1,2-Dibromo-3-chloropropane	ND		ug/l	4.0	--	2
Hexachlorobutadiene	ND		ug/l	1.2	--	2
Isopropylbenzene	ND		ug/l	4.0	--	2
p-Isopropyltoluene	ND		ug/l	4.0	--	2
Naphthalene	ND		ug/l	4.0	--	2
n-Propylbenzene	ND		ug/l	4.0	--	2

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-05 D2
 Client ID: 045163-MW122
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 08:30
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	4.0	--	2
1,2,4-Trichlorobenzene	ND		ug/l	4.0	--	2
1,3,5-Trimethylbenzene	ND		ug/l	4.0	--	2
1,2,4-Trimethylbenzene	ND		ug/l	4.0	--	2
Diethyl ether	ND		ug/l	4.0	--	2
Diisopropyl Ether	ND		ug/l	4.0	--	2
Ethyl-Tert-Butyl-Ether	ND		ug/l	4.0	--	2
Tertiary-Amyl Methyl Ether	ND		ug/l	4.0	--	2
1,4-Dioxane	ND		ug/l	500	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	95		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-05 D
 Client ID: 045163-MW122
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 08:30
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/09/24 12:59

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

Tetrachloroethene	170		ug/l	4.0	--	4
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	110		70-130



Consulting
Engineers and
Scientists

January 30, 2024
Project 04516-3

Ms. Eliza Datta
31 Tufts Street/Glen Pocket Park LLC
40 Homer Street
Newton, MA 02459

Ms. Eliza Datta:

**Re: Indoor Air and Soil Vapor Sampling
31 Tufts Street
Somerville, Massachusetts**

Thank you for permitting GEI to conduct indoor air and soil vapor sampling at your property located at 31 Tufts Street in Somerville, Massachusetts. Following sampling, we are providing you with a "Notice of Environmental Sampling Form (BWSC-123)," as required by the Massachusetts Department of Environmental Protection (MassDEP). We will also provide you with the results of the indoor air and soil vapor sampling after they are available from the analytical laboratory.

Thank you for your continued assistance. Please contact me at 781-721-4012 or igladstone@geiconsultants.com, if you have any questions.

Sincerely,

GEI CONSULTANTS, INC.

A blue ink signature of Heen S. Gladstone, consisting of a series of loops and a long horizontal stroke.

Heen S. Gladstone, P.E., LSP, LEED AP
Senior Vice President

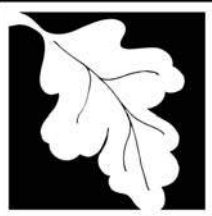
A blue ink signature of Christopher Coner, featuring a stylized 'C' and 'C'.

Christopher Coner, CHMM
Project Manager

MEF/COC:jam
Enclosure

c: Catherine Malagrida, UniFirst Corporation
MassDEP-NERO (as part of Status Report)

B:\Private\04516\2.0 Correspondence\2.4 Residences\Individual Residences\Tufts Street\31 Tufts Street\Jan 2024 Indoor Air Sampling\NOS\31 Tufts Street NOS Jan 2024.docx



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

3 - 23246

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 50 Tufts Street
City/Town: Somerville Zip Code: 02145-4129

B. This notice is being provided to the following party:

1. Name: Eliza Datta - 31 Tufts St/Tufts Glen Pocket Park LLC
2. Street Address: 40 Homer Street
City/Town: Newton, MA Zip Code: 02459

C. This notice is being given to inform its recipient (the party listed in Section B):

- ☒ 1. That environmental sampling ~~will be~~/has been conducted at property owned by the recipient of this notice.
- ☐ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.
- ☐ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling ~~will be~~/has been conducted:

1. Street Address: 31 Tufts Street
City/Town: Somerville, MA Zip Code: 02145-4400
2. MCP phase of work during which the sampling ~~will be~~/has been conducted:
- | | |
|---|--|
| ☐ Immediate Response Action | ☐ Phase III Feasibility Evaluation |
| ☐ Release Abatement Measure | ☐ Phase IV Remedy Implementation Plan |
| ☐ Utility-related Abatement Measure | ☒ Phase V/Remedy Operation Status |
| ☐ Phase I Initial Site Investigation | ☐ Post-Temporary Solution Operation, Maintenance and Monitoring |
| ☐ Phase II Comprehensive Site Assessment | ☐ Other _____ |
- (specify)
3. Description of property where sampling ~~will be~~/has been conducted:
- ☒ residential ☐ commercial ☐ industrial ☐ school/playground ☐ Other _____
- (specify)
4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.
- Indoor Air and Sub-slab soil vapor sampling

E. Contact information related to the party providing this notice:

Contact Name: Ileen Gladstone, P.E., LSP, LEED AP
Street Address: GEI Consultants, Inc., 400 Unicorn Park Drive
City/Town: Woburn, MA Zip Code: 01801-3341
Telephone: (781) 721-4012 Email: igladstone@geiconsultants.com



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

3

- 23246

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at <http://www.mass.gov/eea/agencies/massdep/cleanup>. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See <http://public.dep.state.ma.us/SearchableSites2/Search.aspx> to view site-specific files on-line or <http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html> if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.



Consulting
Engineers and
Scientists

April 3, 2024
Project 04516-3

Ms. Eliza Datta
31 Tufts Street/Glen Pocket Park LLC
40 Homer Street
Newton, MA 02459

Dear Ms. Datta:

**Re: Indoor Air and Soil Vapor Sampling Results
31 Tufts Street
Somerville, Massachusetts**

On behalf of the UniFirst Corporation, GEI Consultants, Inc. collected indoor air and soil vapor samples on January 31, 2024, at your property at 31 Tufts Street to evaluate the potential for vapor intrusion. We are providing you with the sampling results and a "Notice of Environmental Sampling" (Form BWSC-123) as required by the Massachusetts Department of Environmental Protection (MassDEP).

On January 31, 2024, three indoor air samples were collected on the first floor in two units and the utility room. The samples were collected over a 24-hour period. Attached is a summary table of the chemicals detected in the indoor air samples along with the previous sampling results (Table 1), and the laboratory data sheets for the recent sampling.

Tetrachloroethylene (PCE) was not detected above the laboratory reporting limits in any of the samples collected. Trans-1,2-dichloroethylene (trans-1,2-DCE) was detected in IA1 (collected from Unit 1) at a concentration of 0.103 micrograms per meter cubed ($\mu\text{g}/\text{m}^3$). No other chlorinated volatile organic compounds (VOCs) were detected in the samples at concentrations above the laboratory reporting limits.

On January 31, 2024, two soil vapor samples were collected from beneath the building slab in the utility room (SV1) and in the northern stairwell (SV2). The samples were collected over 1 hour. Attached is a summary table of the chemicals detected in the soil vapor samples along with the previous sampling results (Table 2), and the laboratory data sheets for the recent sampling. PCE was detected at concentrations of 31.5 $\mu\text{g}/\text{m}^3$ and 77.3 $\mu\text{g}/\text{m}^3$, at SV1 and SV2, respectively. Additionally, cis-1,2-DCE (0.270 $\mu\text{g}/\text{m}^3$), 1,1,1-trichloroethane [1,1,1-TCA] (9.82 $\mu\text{g}/\text{m}^3$), and trichloroethylene [TCE] (2.42 $\mu\text{g}/\text{m}^3$) were detected at SV2 and 1,1,1-TCA (0.786 $\mu\text{g}/\text{m}^3$) was detected at SV1.

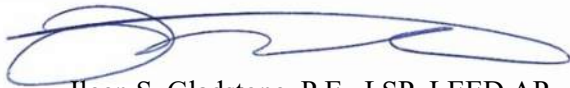
The October 2023 and January 2024 indoor air sampling results indicate that a condition of NSR exists, but additional evaluation is required. We would like to collect additional rounds of indoor air data to continue to evaluate if the EPMM is required to maintain a level of NSR. The next round of indoor air sampling will be conducted in summer 2024 with the vent pipe closed.

Individuals and public officials may request additional public involvement activities under the Massachusetts Contingency Plan (MCP; 310 CMR 40.1403(9) and 40.1404). The property owner also may request additional documentation, such as that listed at 310 CMR 40.0017(3), associated with the above-referenced samples. We will provide such additional documentation within 30 days of our receipt of such a request.

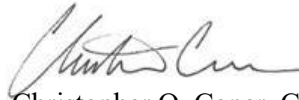
We appreciate your continued cooperation throughout the sampling process. If you have any questions regarding the sampling results, please do not hesitate to contact me at 781-721-4012 or igladstone@geiconsultants.com.

Sincerely,

GEI CONSULTANTS, INC.



Ileen S. Gladstone, P.E., LSP, LEED AP
Senior Vice President

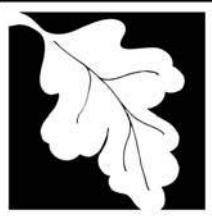


Christopher O. Coner, CHMM
Project Manager

MEF/COC/ISG:jam

Enclosures

c: Catherine Malagrida, UniFirst Corporation
MassDEP



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

3 - 23246

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 50 Tufts Street
City/Town: Somerville Zip Code: 02145-4129

B. This notice is being provided to the following party:

1. Name: Eliza Datta - 31 Tufts St/Tufts Glen Pocket Park LLC
2. Street Address: 40 Homer Street
City/Town: Newton, MA Zip Code: 02459

C. This notice is being given to inform its recipient (the party listed in Section B):

- ☒ 1. That environmental sampling ~~will be~~/has been conducted at property owned by the recipient of this notice.
- ☒ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.
- ☒ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling ~~will be~~/has been conducted:

1. Street Address: 31 Tufts Street
City/Town: Somerville, MA Zip Code: 02145-4400
2. MCP phase of work during which the sampling ~~will be~~/has been conducted:
- | | |
|---|--|
| ☐ Immediate Response Action | ☐ Phase III Feasibility Evaluation |
| ☐ Release Abatement Measure | ☐ Phase IV Remedy Implementation Plan |
| ☐ Utility-related Abatement Measure | ☒ Phase V/Remedy Operation Status |
| ☐ Phase I Initial Site Investigation | ☐ Post-Temporary Solution Operation, Maintenance and Monitoring |
| ☐ Phase II Comprehensive Site Assessment | ☐ Other _____ |
- (specify)
3. Description of property where sampling ~~will be~~/has been conducted:
- ☒ residential ☐ commercial ☐ industrial ☐ school/playground ☐ Other _____
- (specify)
4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.
- Indoor Air and Sub-slab soil vapor sampling

E. Contact information related to the party providing this notice:

Contact Name: Ileen Gladstone, P.E., LSP, LEED AP
Street Address: GEI Consultants, Inc., 400 Unicorn Park Drive
City/Town: Woburn, MA Zip Code: 01801-3341
Telephone: (781) 721-4012 Email: igladstone@geiconsultants.com



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

3

- 23246

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at <http://www.mass.gov/eea/agencies/massdep/cleanup>. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See <http://public.dep.state.ma.us/SearchableSites2/Search.aspx> to view site-specific files on-line or <http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html> if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

Table 1. Chemical Testing Results - Indoor Air
31 Tufts Street
Somerville, Massachusetts

				31 Tufts Street					
				31TUFT-IA1		31TUFT-IA2		31TUFTS-IA3	
				10/17/2023	1/31/2024	10/17/2023	1/31/2024	10/17/2023	1/31/2024
				Collected By: GEI	GEI	GEI	GEI	GEI	GEI
Analyte	Method	Units	Residential Indoor Air Threshold Values						
Volatile Organic Compounds (VOCs)	TO-15	µg/m ³							
trans-1,2-Dichloroethene			0.8	<0.079	0.103	<0.079	<0.079	<0.079	<0.079
Tetrachloroethene			1.4	<0.136	<0.136	0.203	<0.136	0.176	<0.136

General Notes

1. Analytes detected above the laboratory reporting limit are reported here. For a complete list of analytes see the laboratory data sheets.
2. µg/m3 = micrograms per cubic meter.
3. Residential Threshold Values are cited from "Vapor Intrusion Guidance WSC#16-435" from the Massachusetts Department of Environmental Protection dated October 2016.

Table 2. Chemical Testing Results - Sub Slab Soil Vapor

31 Tufts Street

Somerville, Massachusetts

				Sample Location:			
				31 Tufts Street			
				Sample Name:		31TUFT-SV1	
				Sample Date:		31TUFT-SV2	
				10/17/2023		1/31/2024	
				Collected By:		10/27/2023	
				GEI		1/31/2024	
				GEI		GEI	
				GEI		GEI	
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Project Name: TUFTS ST**Project Number:** 045163**Lab Number:** L2405873**Report Date:** 02/19/24**SAMPLE RESULTS**

Lab ID: L2405873-01
 Client ID: 045163-31TUFT-IA1
 Sample Location: SOMERVILLE, MA

Date Collected: 01/31/24 12:02
 Date Received: 02/02/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 02/16/24 03:20
 Analyst: JMB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.026	0.020	--	0.103	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	93		60-140



Project Name: TUFTS ST**Project Number:** 045163**Lab Number:** L2405873**Report Date:** 02/19/24**SAMPLE RESULTS**

Lab ID: L2405873-02
 Client ID: 045163-31TUFT-IA2
 Sample Location: SOMERVILLE, MA

Date Collected: 01/31/24 10:06
 Date Received: 02/02/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 02/16/24 04:00
 Analyst: JMB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	93		60-140



Project Name: TUFTS ST**Project Number:** 045163**Lab Number:** L2405873**Report Date:** 02/19/24**SAMPLE RESULTS**

Lab ID: L2405873-03
 Client ID: 045163-31TUFT-IA3
 Sample Location: SOMERVILLE, MA

Date Collected: 01/31/24 10:55
 Date Received: 02/02/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 02/16/24 04:39
 Analyst: JMB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	94		60-140



Project Name: TUFTS ST**Project Number:** 045163**Lab Number:** L2405873**Report Date:** 02/19/24**SAMPLE RESULTS**

Lab ID: L2405873-04
 Client ID: 045163-31TUFT-SV1
 Sample Location: SOMERVILLE, MA

Date Collected: 01/31/24 14:05
 Date Received: 02/02/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 02/17/24 18:14
 Analyst: BJB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	0.144	0.020	--	0.786	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	4.65	0.020	--	31.5	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	103		60-140
bromochloromethane	112		60-140
chlorobenzene-d5	101		60-140



Project Name: TUFTS ST**Project Number:** 045163**Lab Number:** L2405873**Report Date:** 02/19/24**SAMPLE RESULTS**

Lab ID: L2405873-05
 Client ID: 045163-31TUFT-SV2
 Sample Location: SOMERVILLE, MA

Date Collected: 01/31/24 14:00
 Date Received: 02/02/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 02/17/24 17:35
 Analyst: BJB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	0.068	0.020	--	0.270	0.079	--		1
1,1,1-Trichloroethane	1.80	0.020	--	9.82	0.109	--		1
Trichloroethene	0.451	0.020	--	2.42	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	11.4	0.020	--	77.3	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	94		60-140





Consulting
Engineers and
Scientists

March 5, 2024
Project 04516-3

Ms. Vera Barter
Hodan Property Management
105 Washington Street
Somerville, MA 02143

Ms. Vera Barter:

**Re: Indoor Air and Soil Vapor Sampling
103 Washington Street
Somerville, Massachusetts**

Thank you for permitting GEI to conduct soil vapor and indoor air sampling at your property located at 103 Washington Street in Somerville, Massachusetts. Following sampling, we are providing you with a "Notice of Environmental Sampling Form (BWSC-123)," as required by the Massachusetts Department of Environmental Protection (MassDEP). We will also provide you with the results of the soil vapor sampling after they are available from the analytical laboratory.

Thank you for your continued assistance. Please contact me at 781-721-4012 or igladstone@geiconsultants.com, if you have any questions.

Sincerely,

GEI CONSULTANTS, INC.

A blue ink signature of Heen S. Gladstone, consisting of a large, stylized 'H' followed by a long horizontal stroke.

Heen S. Gladstone, P.E., LSP, LEED AP
Senior Vice President

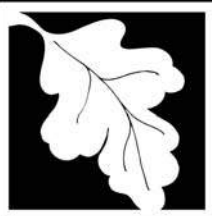
A blue ink signature of Christopher Coner, featuring a stylized 'C' and 'C'.

Christopher Coner, CHMM
Project Manager

MEF/COC:jam
Enclosure

c: Catherine Malagrida, UniFirst Corporation
MassDEP-NERO (as part of Status Report)

B:\Private\04516\2.0 Correspondence\2.4 Residences\Individual Residences\Washington Street\103 Washington\103 Washington St Redevelopment\Sampling Letters\5. March 2024 Sampling NOS\103 Washington NOS March 2024.docx



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

3 - 23246

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 50 Tufts Street
City/Town: Somerville Zip Code: 02145-4129

B. This notice is being provided to the following party:

1. Name: Vera Barter- Hodan Property Management
2. Street Address: 105 Washington Street
City/Town: Somerville, MA Zip Code: 02143

C. This notice is being given to inform its recipient (the party listed in Section B):

- ☒ 1. That environmental sampling ~~will be~~/has been conducted at property owned by the recipient of this notice.
- ☐ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.
- ☐ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling ~~will be~~/has been conducted:

1. Street Address: 103 Washington Street
City/Town: Somerville, MA Zip Code: 02145-4400
2. MCP phase of work during which the sampling ~~will be~~/has been conducted:
- | | |
|---|--|
| ☐ Immediate Response Action | ☐ Phase III Feasibility Evaluation |
| ☐ Release Abatement Measure | ☐ Phase IV Remedy Implementation Plan |
| ☐ Utility-related Abatement Measure | ☒ Phase V/Remedy Operation Status |
| ☐ Phase I Initial Site Investigation | ☐ Post-Temporary Solution Operation, Maintenance and Monitoring |
| ☐ Phase II Comprehensive Site Assessment | ☐ Other _____ |
- (specify)
3. Description of property where sampling ~~will be~~/has been conducted:
- ☒ residential ☒ commercial ☐ industrial ☐ school/playground ☐ Other _____
- (specify)
4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.
- Indoor air and sub-slab soil vapor sampling

E. Contact information related to the party providing this notice:

Contact Name: Ileen Gladstone, P.E., LSP, LEED AP
Street Address: GEI Consultants, Inc., 400 Unicorn Park Drive
City/Town: Woburn, MA Zip Code: 01801-3341
Telephone: (781) 721-4012 Email: igladstone@geiconsultants.com



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

3

- 23246

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at <http://www.mass.gov/eea/agencies/massdep/cleanup>. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See <http://public.dep.state.ma.us/SearchableSites2/Search.aspx> to view site-specific files on-line or <http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html> if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.



Consulting
Engineers and
Scientists

May 29, 2024
Project 04516-3

Catalina Barahona
97 Franklin Street
Somerville, MA 02145

Dear Ms. Barahona:

**Re: Indoor Air and Soil Vapor Sampling
97 Franklin Street
Somerville, Massachusetts**

Thank you for permitting GEI to conduct indoor air and soil vapor sampling at your property. Following indoor air and soil vapor sampling, we are providing you with a "Notice of Environmental Sampling" (Form BWSC-123), as required by the Massachusetts Department of Environmental Protection (MassDEP).

Thank you for your continuing assistance. Please contact me at 781-721-4012 or igladstone@geiconsultants.com if you have any questions.

Sincerely,

GEI CONSULTANTS, INC.

A blue ink signature of Ileen S. Gladstone, consisting of a large, stylized loop followed by a horizontal line and a small flourish.

Ileen S. Gladstone, P.E., LSP, LEED AP
Senior Vice President

A blue ink signature of Christopher Coner, written in a cursive style.

Christopher Coner, CHMM
Project Manager

MEF/COC:jam
Enclosure

c: Catherine Malagrida, UniFirst Corporation
MassDEP (via Status Report)



**Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup**

BWSC123

This Notice is Related to:
Release Tracking Number

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

3 - 23246

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 50 Tufts Street
City/Town: Somerville, MA Zip Code: 02145-4225

B. This notice is being provided to the following party:

1. Name: Ms Catalina Barahona
2. Street Address: 97 Franklin Street
City/Town: Somerville, MA Zip Code: 02145

C. This notice is being given to inform its recipient (the party listed in Section B):

- ☒ 1. That environmental sampling ~~will be~~/has been conducted at property owned by the recipient of this notice.
☐ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.
☐ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling ~~will be~~/has been conducted:

1. Street Address: 97 Franklin Street
City/Town: Somerville, MA Zip Code: 02145-4216
2. MCP phase of work during which the sampling ~~will be~~/has been conducted:
- | | |
|---|--|
| ☐ Immediate Response Action | ☐ Phase III Feasibility Evaluation |
| ☐ Release Abatement Measure | ☐ Phase IV Remedy Implementation Plan |
| ☐ Utility-related Abatement Measure | ☒ Phase V/Remedy Operation Status |
| ☐ Phase I Initial Site Investigation | ☐ Post-Temporary Solution Operation, Maintenance and Monitoring |
| ☐ Phase II Comprehensive Site Assessment | ☐ Other _____ |
- (specify)
3. Description of property where sampling ~~will be~~/has been conducted:
☒ residential ☐ commercial ☐ industrial ☐ school/playground ☐ Other _____
(specify)
4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.
Indoor air and soil vapor sampling

E. Contact information related to the party providing this notice:

Contact Name: Ileen Gladstone, P.E., LSP, LEED AP
Street Address: GEI Consultants, Inc., 400 Unicorn Park Drive
City/Town: Woburn, MA Zip Code: 01801-3341
Telephone: (781) 721-4012 Email: igladstone@geiconsultants.com



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

3

- 23246

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at <http://www.mass.gov/eea/agencies/massdep/cleanup>. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See <http://public.dep.state.ma.us/SearchableSites2/Search.aspx> to view site-specific files on-line or <http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html> if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.



Consulting July 31, 2024
Engineers and Project 045163
Scientists

Ms. Vera Barter
Hodan Property Management
105 Washington Street
Somerville, MA 02143

Dear Ms. Barter:

**Re: Indoor Air and Sub-Slab Soil Vapor Sampling Results
103 Washington Street
Somerville, Massachusetts**

On behalf of the UniFirst Corporation, GEI Consultants, Inc. collected indoor air and sub-slab soil vapor samples on March 5, 2024, at your property at 103 Washington Street to evaluate the potential for vapor intrusion.

On March 5, 2024, one indoor air sample was collected on the first floor and one indoor air sample was collected in the basement. The first floor is commercial or ancillary space associated with residences on the second floor or above the open-air parking. The samples were collected over a 24-hour period. Attached is a summary table of the chemicals detected in the indoor air samples (Table 1), and the laboratory data sheets for the recent sampling.

Tetrachloroethylene (PCE) was detected in the basement sample at a concentration of 0.325 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) and was not detected in the first-floor sample. No other chlorinated volatile organic compounds (CVOCs) were detected in the samples.

On March 5, 2024, GEI collected two soil vapor samples from the previously installed sub-slab monitoring points to evaluate the concentrations of chlorinated VOCs in soil vapor beneath the building. Attached is a summary table of the chemicals detected in the soil vapor samples (Table 2) and the laboratory data sheets for the recent sampling.

Concentrations of PCE were detected above laboratory reporting limits. PCE was detected in both samples at $0.210 \mu\text{g}/\text{m}^3$ and $40.9 \mu\text{g}/\text{m}^3$ in SV1 and SV2, respectively. TCE was detected in SV2 at a concentration of $37.6 \mu\text{g}/\text{m}^3$. Cis-1,2-dichloroethylene (cis-1,2-DCE) and trans-1,2-dichloroethylene (trans-1,2-DC) were detected in SV2. The concentration of cis-1,2-DCE was $12.2 \mu\text{g}/\text{m}^3$, and the concentration of trans-1,2-DCE was $2.24 \mu\text{g}/\text{m}^3$.

GEI performed a risk assessment screening using the March 5, 2024, indoor air results in accordance with MassDEP protocols. The risk assessment screening demonstrates that the indoor air concentrations pose NSR to a residential occupant based on a conservative exposure duration of 24-hours per day.

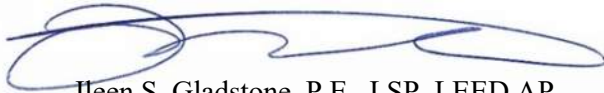
GEI recommends collecting an additional round of indoor air samples from the basement and first floor of the building in winter 2024/2025, to continue to evaluate the potential for a vapor intrusion pathway. GEI also recommends collecting an additional round of soil vapor concurrently with the indoor air sampling.

Individuals and public officials may request additional public involvement activities under the Massachusetts Contingency Plan (MCP; 310 CMR 40.1403(9) and 40.1404). The property owner may also request additional documentation, such as that listed at 310 CMR 40.0017(3), associated with the above-referenced samples. We will provide such additional documentation within 30 days of our receipt of such a request.

We appreciate your continued cooperation throughout the sampling process. If you have any questions regarding the sampling results, please do not hesitate to contact me at 781-721-4012 or igladstone@geiconsultants.com.

Sincerely,

GEI CONSULTANTS, INC.



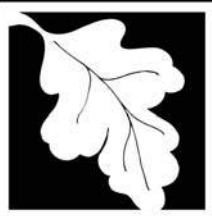
Helen S. Gladstone, P.E., LSP, LEED AP
Senior Vice President



Christopher O. Coner, CHMM
Project Manager

MEF/COC:jam
Enclosures

c: Catherine Malagrida, UniFirst Corporation
MassDEP via Status Report



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

3 - 23246

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 50 Tufts Street
City/Town: Somerville Zip Code: 02145-4129

B. This notice is being provided to the following party:

1. Name: Vera Barter- Hodan Property Management
2. Street Address: 105 Washington Street
City/Town: Somerville, MA Zip Code: 02143

C. This notice is being given to inform its recipient (the party listed in Section B):

- ☒ 1. That environmental sampling ~~will be~~/has been conducted at property owned by the recipient of this notice.
- ☒ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.
- ☒ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling ~~will be~~/has been conducted:

1. Street Address: 103 Washington Street
City/Town: Somerville, MA Zip Code: 02145-4400
2. MCP phase of work during which the sampling ~~will be~~/has been conducted:
- | | |
|---|--|
| ☐ Immediate Response Action | ☐ Phase III Feasibility Evaluation |
| ☐ Release Abatement Measure | ☐ Phase IV Remedy Implementation Plan |
| ☐ Utility-related Abatement Measure | ☒ Phase V/Remedy Operation Status |
| ☐ Phase I Initial Site Investigation | ☐ Post-Temporary Solution Operation, Maintenance and Monitoring |
| ☐ Phase II Comprehensive Site Assessment | ☐ Other _____ |
- (specify)
3. Description of property where sampling ~~will be~~/has been conducted:
- ☒ residential ☒ commercial ☐ industrial ☐ school/playground ☐ Other _____
- (specify)
4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.
- Indoor air and sub-slab soil vapor sampling

E. Contact information related to the party providing this notice:

Contact Name: Ileen Gladstone, P.E., LSP, LEED AP
Street Address: GEI Consultants, Inc., 400 Unicorn Park Drive
City/Town: Woburn, MA Zip Code: 01801-3341
Telephone: (781) 721-4012 Email: igladstone@geiconsultants.com



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

3

- 23246

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at <http://www.mass.gov/eea/agencies/massdep/cleanup>. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See <http://public.dep.state.ma.us/SearchableSites2/Search.aspx> to view site-specific files on-line or <http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html> if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

Table 1 - Chemical Testing Results - Indoor Air
103 Washington Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units:				First Floor						Basement			
				103Wash-F1 5/10/23		103Wash-F1 7/6/23		103Wash-F1 3/5/24		103Wash-B1 7/6/23		103Wash-B1 3/5/24	
				µg/m3	ppbv	µg/m3	ppbv	µg/m3	ppbv	µg/m3	ppbv	µg/m3	ppbv
Analyte	Method	MassDEP Residential Indoor Air Threshold Values (µg/m³)	MassDEP Commerical Indoor Air Threshold Values (µg/m³)										
Volatile Organic Compounds (VOCs)	TO-15												
cis-1,2,-Dichloroethylene		0.8	5.3	<0.079	<0.020	0.107	0.027	<0.079	<0.020	0.599	0.151	<0.079	<0.020
trans-1,2-Dichloroethylene		0.8	53	0.194	0.049	0.852	0.215	<0.079	<0.020	6.50	1.64	<0.079	<0.020
Tetrachloroethylene (PCE)		1.4	4.1	0.278	0.041	0.692	0.102	<0.136	<0.020	2.28	0.336	0.325	0.048
Trichloroethylene (TCE)		0.4	1.8	<0.107	<0.020	0.204	0.038	<0.107	<0.020	0.919	0.171	<0.107	<0.020

General Notes:

- 1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
- 2. µg/m³ = micrograms per cubic meter.
- 3. ppbv = parts per billion by volume.
- 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
- 5. Results highlighted are the most recent samples collected.
- 6. A sample was not collected from the basement in May 2023 due to fresh air introduction during construction acvities.

Table 2 - Chemical Testing Results - Sub-Slab Soil Vapor
103 Washington Street
Somerville, Massachusetts

				103 Washington Street											
Location Name:				103Wash-SV1						103Wash-SV2					
Sample Name:				5/10/2023		7/6/2023		3/5/2024		5/10/2023		7/6/2023		3/5/2024	
Sample Date:				µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv	µg/m³	ppbv
Units:															
Analyte	Method	Residential Sub-Slab Soil Gas Screening Values (µg/m³)	Commercial Sub-Slab Soil Gas Screening Values (µg/m³)												
Volatile Organic Compounds (VOCs)	TO-15														
1,1-Dichloroethylene		56	12000	<0.079	<0.020	<0.079	<0.020	<0.079	<0.020	<0.079	<0.020	0.107	0.027	<0.079	<0.020
cis-1,2-Dichloroethylene		56	370	1.95	0.493	2.32	0.585	<0.079	<0.020	9.48	2.39	19.2	4.83	12.2	3.07
trans-1,2-Dichloroethylene		56	3700	1.17	0.295	2.39	0.603	<0.079	<0.020	6.66	1.68	7.41	1.87	2.24	0.565
Tetrachloroethylene (PCE)		98	290	28.5	4.21	51.5	7.60	0.210	0.031	189	27.9	188	27.7	40.9	6.0
1,1,1-Trichloroethane		210	310000	<0.109	<0.020	0.115	0.021	<0.109	<0.020	0.175	0.032	0.278	0.051	<0.109	<0.020
Trichloroethylene (TCE)		28	120	9.46	1.76	15.7	2.92	<0.107	<0.020	98.3	18.3	130	24.1	37.6	7.00

- General Notes:**
1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 2. µg/m³ = micrograms per cubic meter.
 3. ppbv = parts per billion by volume.
 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 5. Results highlighted are the most recent samples collected.

Project Name: TUFTS STREET**Project Number:** 045163**Lab Number:** L2412029**Report Date:** 03/20/24**SAMPLE RESULTS**

Lab ID: L2412029-01
 Client ID: 045163-103WASH-B1
 Sample Location: SOMERVILLE, MA

Date Collected: 03/05/24 09:56
 Date Received: 03/06/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 03/20/24 12:01
 Analyst: BJB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	0.048	0.020	--	0.325	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	104		60-140
chlorobenzene-d5	101		60-140



Project Name: TUFTS STREET**Project Number:** 045163**Lab Number:** L2412029**Report Date:** 03/20/24**SAMPLE RESULTS**

Lab ID: L2412029-02
 Client ID: 045163-103WASH-F1
 Sample Location: SOMERVILLE, MA

Date Collected: 03/05/24 10:05
 Date Received: 03/06/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 03/18/24 21:33
 Analyst: JMB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	91		60-140



Project Name: TUFTS STREET**Project Number:** 045163**Lab Number:** L2412029**Report Date:** 03/20/24**SAMPLE RESULTS**

Lab ID: L2412029-03
 Client ID: 045163-103WASH-SV2
 Sample Location: SOMERVILLE, MA

Date Collected: 03/05/24 10:58
 Date Received: 03/06/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 03/19/24 06:04
 Analyst: JMB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.565	0.020	--	2.24	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	3.07	0.020	--	12.2	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	7.00	0.020	--	37.6	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	6.03	0.020	--	40.9	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	86		60-140



Project Name: TUFTS STREET**Project Number:** 045163**Lab Number:** L2412029**Report Date:** 03/20/24**SAMPLE RESULTS**

Lab ID: L2412029-04
 Client ID: 045163-103WASH-SV1
 Sample Location: SOMERVILLE, MA

Date Collected: 03/05/24 11:03
 Date Received: 03/06/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 03/19/24 06:51
 Analyst: JMB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	0.031	0.020	--	0.210	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	86		60-140





Consulting January 24, 2024
Engineers and Project 04516-3
Scientists

CERTIFIED MAIL 9171 9690 0935 0204 6589 12

Marion Morton Realty Trust
Xinjian Qiao, Trustee
46 Gibson Street
Medford, MA 02155-4831

Dear Ms. Qiao:

**Re: Annual EPMM Inspection
4 Morton Street
Somerville, Massachusetts**

On behalf of UniFirst Corporation, I am writing to request access to your property at 4 Morton Street to perform the annual inspection of the exposure pathway mitigation measure (EPMM) installed in the basement. We previously sent a letter on August 16, 2022, March 13, 2023, August 16, 2023 and October 9, 2023.

The EPMM consists of a sub-slab vapor barrier, ventilation piping with extraction points beneath the basement slab, and sealing the basement floor and the below grade portion of the walls. The EPMM was installed to inhibit vapors from intruding through the building foundation. We typically inspect the EPMM annually to confirm that the components are intact and functioning as intended.

Please contact Christopher Coner at 781-721-4135 or cconer@geiconsultants.com, to schedule the annual EPMM inspection of the basement, if you have any questions, or would like additional information.

Our records indicate that your preferred method for scheduling EPMM inspections was by email at qiaox2001@yahoo.com and your home and work numbers were 617-905-5158 and 781-839-1765, respectively. It appears that the home and work phone numbers we have for you are no longer working numbers and we received no response to our email. Please inform me if you have an alternative phone number or email for scheduling future EPMM inspections.

Sincerely,

GEI CONSULTANTS, INC.

A blue ink signature of Heen S. Gladstone, consisting of a large, stylized 'H' followed by a series of loops and a long horizontal stroke.

Heen S. Gladstone, P.E., LSP
Senior Vice President

A blue ink signature of Christopher Coner, featuring a stylized 'C' followed by a series of loops and a long horizontal stroke.

Christopher Coner, CHMM
Project Manager

MEF/CC/ISG:jam

c: Catherine Malagrida, UniFirst Corporation
MassDEP via Status Report



Consulting
Engineers and
Scientists

January 24, 2024
Project 04516-3

CERTIFIED MAIL 9171 9690 0935 0204 6589 05

Gang Lian and Xiao-Ning Wang
5 Butterwick Lane
Old Lyme, CT 06371

Dear Mr. Lian and Mrs. Wang:

**Re: Annual EPMM Inspection
19-19A Morton Street
Somerville, Massachusetts**

On behalf of UniFirst Corporation, I am writing to request access to your property at 19-19A Morton Street to perform the annual inspection of the exposure pathway mitigation measure (EPMM) installed in the basement. We previously sent a letter on August 16, 2022, March 13, 2023 and October 9, 2023.

The EPMM consists of a sub-slab vapor barrier, ventilation piping with extraction points beneath the basement slab, and sealing the basement floor and the below grade portion of the walls. The EPMM was installed to inhibit vapors from intruding through the building foundation. We typically inspect the EPMM annually to confirm that the components are intact and functioning as intended.

Please contact Christopher Coner at 781-721-4135 or cconer@geiconsultants.com, to schedule the annual EPMM inspection of the basement, if you have any questions, or would like additional information.

Sincerely,

GEI CONSULTANTS, INC.

A blue ink signature of Heen S. Gladstone, consisting of a large, stylized 'H' followed by a long horizontal stroke.

Heen S. Gladstone, P.E., LSP
Senior Vice President

A blue ink signature of Christopher Coner, featuring a stylized 'C' and 'C'.

Christopher Coner, CHMM
Project Manager

MEF/CC/ISG:jam

c: Catherine Malagrida, UniFirst Corporation
MassDEP via Status Report



Consulting
Engineers and
Scientists

January 24, 2024
Project 04516-3

CERTIFIED MAIL 9171 9690 0935 0204 6589 36

Mr. David Cardalino
35 Knowlton Street
Somerville, MA 02145

Dear Mr. Cardalino:

**Re: Summary of Indoor Air Sampling and Environmental Conditions
35-37 Knowlton Street
Somerville, Massachusetts**

The purpose of this letter is to provide a summary of the environmental conditions at the property located at 35-37 Knowlton Street in Somerville, Massachusetts due to contamination originating from the property at 50 Tufts Street, and to request access to the property for continued monitoring of the sub-slab ventilation system that has previously been installed.

A release of chlorinated volatile organic compounds (VOCs) to soil and groundwater on the 50 Tufts Street Property was first reported to the Massachusetts Department of Environmental Protection (MassDEP) in 2002. Numerous studies have been conducted relating to the 50 Tufts Street Site, and response actions are currently being conducted under the Massachusetts Contingency Plan (MCP) process. Reports documenting response actions conducted at the Site are available for review at the MassDEP Northeast Regional Office in Woburn, Massachusetts. Records are accessible online at the MassDEP Searchable Sites database (<https://eeaonline.eea.state.ma.us/portal#!/search/wastesite>). Additionally, local public document repositories have been established at the Somerville Central Public Library and at the City of Somerville Clerk's Office. The MassDEP release tracking number (RTN) for the Site is RTN 3-23246. The 35-37 Knowlton Street property is located within the boundaries of the Site (Fig. 1).

The boundaries of the Site were delineated based on the extent of dissolved concentrations of chlorinated VOCs in groundwater. All properties within the Site, including 35-37 Knowlton Street, are serviced by municipal water. Therefore, there is limited potential for direct exposure to contamination in groundwater for human receptors within the Site. Because they are volatile, VOCs have the potential to migrate from subsurface soils or groundwater into the indoor air of buildings. This is known as vapor intrusion.

GEI collected sub-slab soil vapor samples in March 2007. Based on the sub-slab soil vapor sample testing results, an Active Exposure Pathway Mitigation Measure (AEPMM) was installed. The AEPMM consists of sub-slab ventilation piping, and an electric-powered fan to capture soil vapor from below the foundation slab and vent the vapors outside above the roofline.

GEI performed indoor air testing after installation of the AEPMM in March 2010 and March 2011. No VOCs were detected above the laboratory reporting limits. The indoor air sampling results demonstrate that there is a condition of "No Significant Risk" to occupants of the building at 35-37 Knowlton Street. No Significant Risk is a standard established in the Massachusetts Contingency Plan (MCP) to demonstrate that exposure to residual contamination will not result in unacceptable risks to human health based on regulatory thresholds established in the MCP. At present, the condition of No Significant Risk is dependent on the continued operation of the AEPMM installed at the property.

GEI will continue to maintain, inspect, and monitor operation of the system as long as it operates. As part of routine maintenance, GEI replaces the battery in the radio node affixed to the exterior of the house and monitors the fan. GEI is requesting access to the exterior of the property to continue this maintenance.

Please contact me at igladstone@geiconsultants.com or 781-721-4012 to answer any of your questions and to coordinate access.

Sincerely,

GEI CONSULTANTS, INC.



Ileen S. Gladstone, P.E., LSP, LEED AP
Senior Vice President

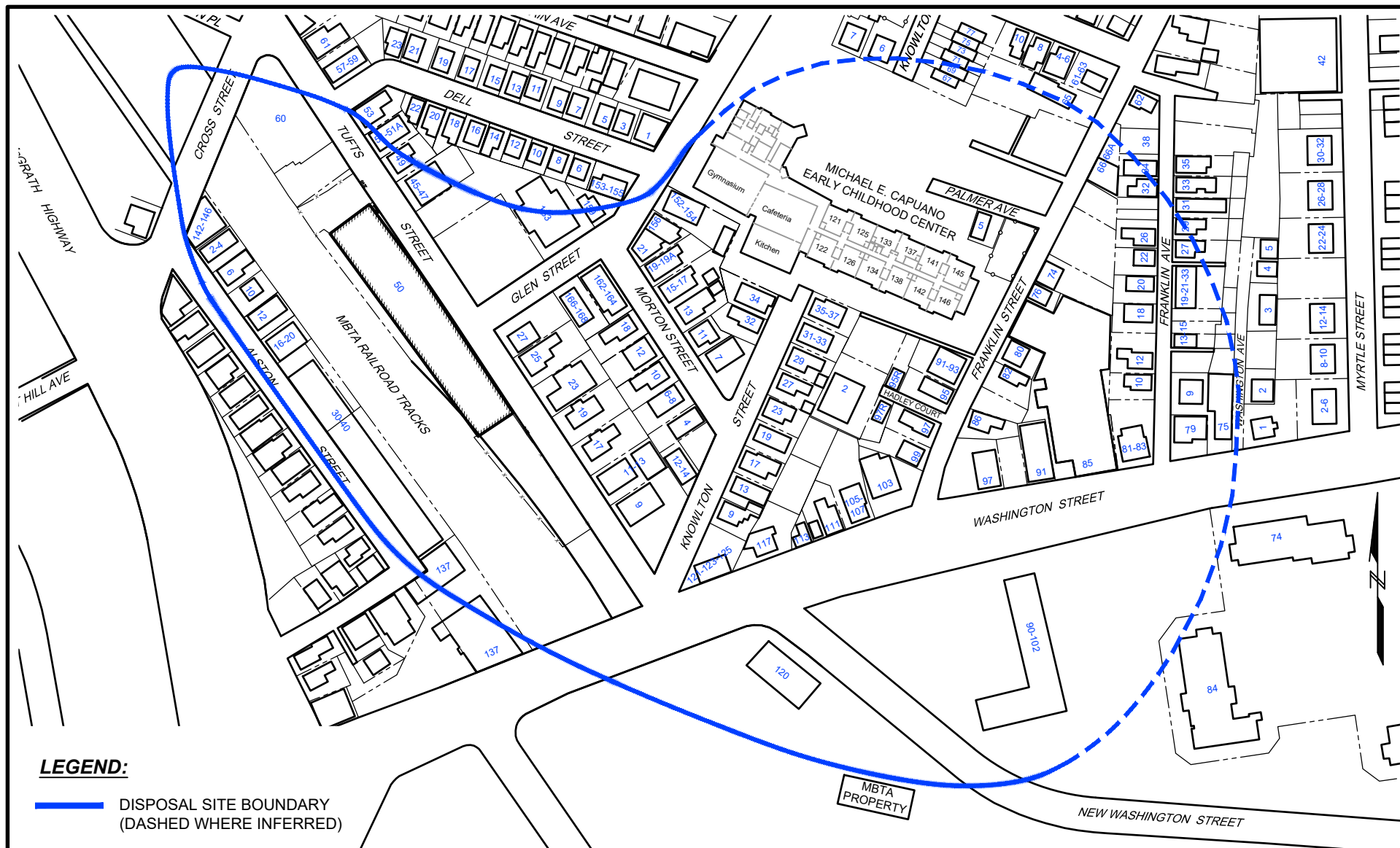


Christopher Coner, CHMM
Project Manager

MEF/COC:jam

Enclosure

c: Catherine Malagrida, UniFirst Corporation
MassDEP via Status Report



50 Tufts Street
 Somerville, Massachusetts

UniFirst Corporation
 Wilmington, Massachusetts



Project 04516-3

SITE SKETCH

June 2023

Fig . 1



Consulting
Engineers and
Scientists

January 24, 2024
Project 04516-3

CERTIFIED MAIL 9171 9690 0935 0204 6589 50

Shelly Calder
Milton Yarberry
84 Franklin Street, Unit 3
Somerville, MA 02145

Dear Ms. Calder and Mr. Yarberry:

**Re: Request to Conduct Environmental Sampling
84-86 Franklin Street, Unit 3
Somerville, Massachusetts**

The purpose of this letter is to inform you about the environmental conditions in the vicinity of your property located at 84-86 Franklin Street, Unit 3 in Somerville, Massachusetts and to request access to conduct environmental sampling. The sampling would include sub-slab soil vapor and indoor air testing. Contamination is originating from the property located at 50 Tufts Street.

A release of chlorinated volatile organic compounds (VOCs) to soil and groundwater on the 50 Tufts Street Property was first reported to the Massachusetts Department of Environmental Protection (MassDEP) in 2002. Numerous studies have been conducted relating to the 50 Tufts Street Site, and response actions are currently being conducted under the Massachusetts Contingency Plan (MCP) process. Reports documenting response actions conducted at the Site are available for review at the MassDEP Northeast Regional Office in Woburn, Massachusetts. Records are accessible online at the MassDEP Searchable Sites database (<https://eeaonline.eea.state.ma.us/portal#!/search/wastesite>). Additionally, local public document repositories have been established at the Somerville Central Public Library and at the City of Somerville Clerk's Office. The MassDEP release tracking number (RTN) for the Site is RTN 3-23246. The 84-86 Franklin Street property is located within the boundaries of the Site (Fig. 1).

The boundaries of the Site were delineated based on the extent of dissolved concentrations of chlorinated VOCs in groundwater. All properties within the Site, including 84-86 Franklin Street, Unit 3, are serviced by municipal water. Therefore, there is limited potential for direct exposure to contamination in groundwater for human receptors within the Site. Because they are volatile, VOCs have the potential to migrate from subsurface soils or groundwater into the indoor air of buildings. This is known as vapor intrusion.

GEI has conducted groundwater sampling throughout the neighborhood, including on Franklin Street and Franklin Avenue, since 2007. Additionally, GEI collected sub-slab soil vapor samples from 86 Franklin Street (now known as 84-86 Franklin Street, Unit 1 and Unit 2) in April 2007. GEI collected indoor air samples from 86 Franklin Street in June 2007, November 2007, and February 2008. The results of the testing indicated that the groundwater contamination had not affected the indoor air of 86 Franklin Street.

Ms.Shelly Calder
Mr. Milton Yarberry

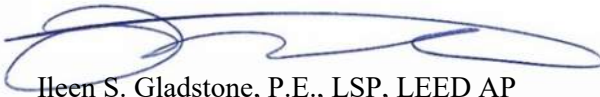
- 2 -

January 24, 2024

GEI would like to conduct similar soil vapor and indoor air testing at your property at no expense to you. Please contact me at igladstone@geiconsultants.com or 781-721-4012 to answer any of your questions and to coordinate access.

Sincerely,

GEI CONSULTANTS, INC.



Heen S. Gladstone, P.E., LSP, LEED AP
Senior Vice President

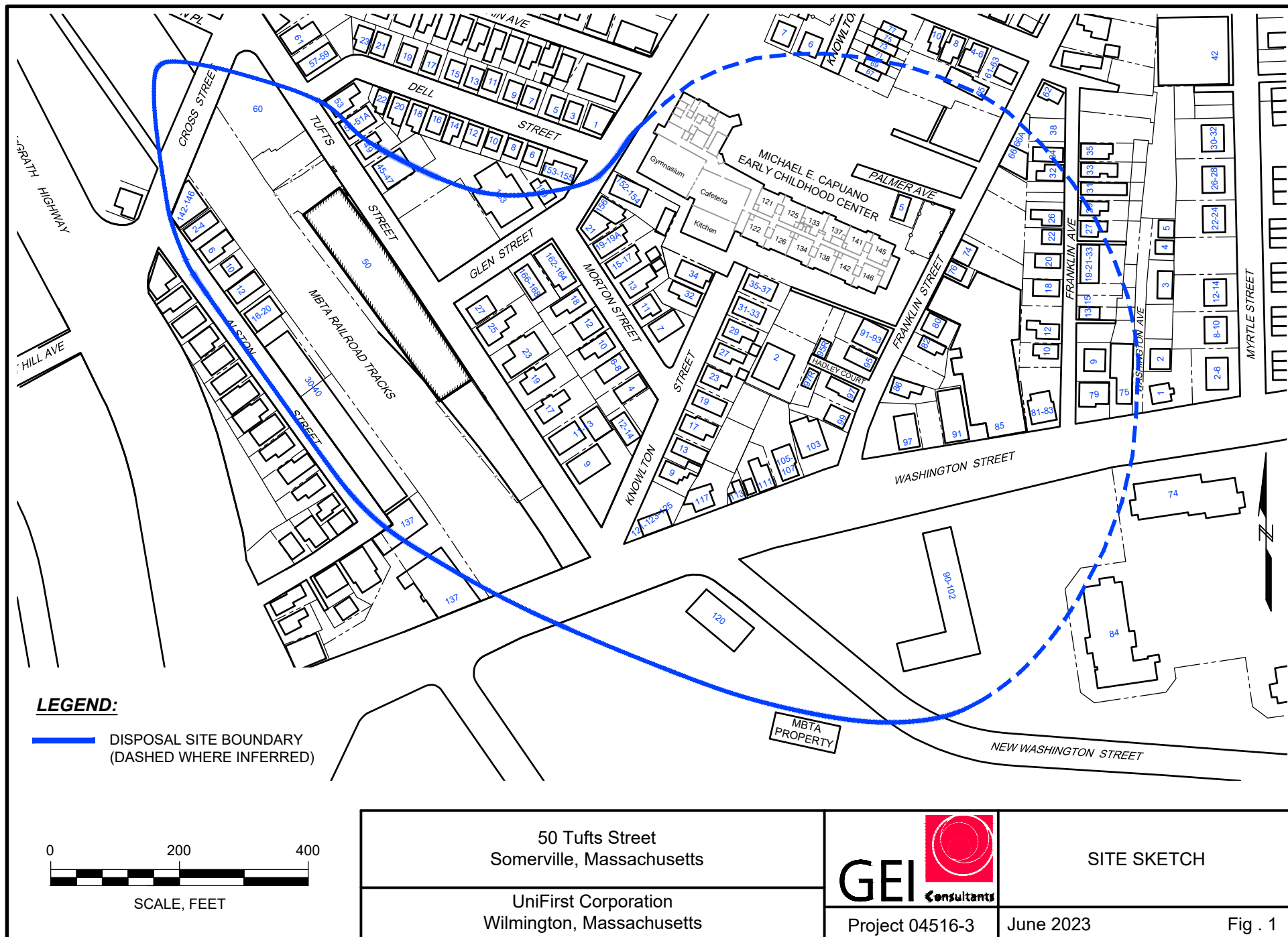


Christopher Coner, CHMM
Project Manager

MEF/COC:jam

Enclosure

c: Catherine Malagrida, UniFirst Corporation
MassDEP-NERO (via Status Report)





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Scientists

January 24, 2024
Project 04516-3

CERTIFIED MAIL 9171 9690 0935 0204 6589 67

Elias and Catalina Barahona
Catalina Barahona
97 Franklin Street
Somerville, MA 02145-4231

Dear Mr. & Ms. Barahona:

**Re: Indoor Air Monitoring
97 Franklin Street
Somerville, Massachusetts**

The purpose of this letter is to request access to conduct sampling at your property at 97 Franklin Street in Somerville, Massachusetts. As you may recall, GEI Consultants conducted sub-slab soil vapor and indoor air testing at your property between 2007 and 2010 due to contamination originating from the 50 Tufts Street Property. The contamination was due to dissolved concentrations of chlorinated volatile organic compounds (VOCs) in groundwater. Because they are volatile, VOCs have the potential to migrate from groundwater into the indoor air of buildings. This is known as vapor intrusion.

The indoor air testing conducted at that time demonstrated a condition of "No Significant Risk" to occupants of the building. No Significant Risk is a standard established in the Massachusetts Contingency Plan (MCP) to demonstrate that exposure to residual contamination will not result in unacceptable risks to human health based on regulatory thresholds established in the MCP.

We have been regularly monitoring the groundwater in the neighborhood and the concentrations of chlorinated VOCs in groundwater near your property have increased. Due to the higher concentrations of chlorinated VOCs in the groundwater, we would like to test the soil vapor and indoor air at your property again. As in the past, this testing would be at no expense to you.

Please contact Christopher Coner at 781-721-4135 or cconer@geiconsultants.com, to answer any of your questions and to coordinate access.

Sincerely,

GEI CONSULTANTS, INC.

A blue ink signature of Heen S. Gladstone, consisting of a large, stylized 'H' followed by a long horizontal stroke.

Heen S. Gladstone, P.E., LSP
Senior Vice President

A blue ink signature of Christopher Coner, featuring a stylized 'C' and 'C'.

Christopher Coner, CHMM
Project Manager

MEF/COC/ISG:jam

c: Catherine Malagrida, UniFirst Corporation
MassDEP via Status Report



Consulting
Engineers and
Scientists

January 30, 2024
Project 04516-3

VIA CERTIFIED MAIL: 9171 9690 0935 0204 6588 13

11 Morton Street Condominium Trust
c/o Mr. Steven Miller
11 Morton Street, Unit 1
Somerville, MA 02145

VIA CERTIFIED MAIL: 9171 9690 0935 0204 6588 06

Mr. Samuel Watson
11 Morton Street, Unit 2
Somerville, MA 02145

**Re: Summary of Indoor Air Sampling and Environmental Conditions
11 Morton Street
Somerville, Massachusetts**

Dear Mr. Miller and Mr. Watson:

The purpose of this letter is to provide a summary of the environmental conditions at the property located at 11 Morton Street in Somerville, Massachusetts associated with contamination originating from the property at 50 Tufts Street, and to request access to the property for continued monitoring of the sub-slab ventilation system that has previously been installed.

A release of chlorinated volatile organic compounds (VOCs) to soil and groundwater on the 50 Tufts Street Property was first reported to the Massachusetts Department of Environmental Protection (MassDEP) in 2002. Numerous studies have been conducted relating to the 50 Tufts Street Site, and response actions are currently being conducted under the Massachusetts Contingency Plan (MCP) process. Reports documenting response actions conducted at the Site are available for review at the MassDEP Northeast Regional Office in Woburn, Massachusetts. Records are accessible online at the MassDEP Searchable Sites database (<https://eeaonline.eea.state.ma.us/portal#!/search/wastesite>). Additionally, local public document repositories have been established at the Somerville Central Public Library and at the City of Somerville Clerk's Office. The MassDEP release tracking number (RTN) for the Site is RTN 3-23246. The 11 Morton Street property is located within the boundaries of the Site (Fig. 1).

The boundaries of the Site were delineated based on the extent of dissolved concentrations of chlorinated VOCs in groundwater. All properties within the Site, including 11 Morton Street, are serviced by municipal water. Therefore, there is limited potential for direct exposure to contamination in groundwater for human receptors within the Site. Because they are volatile, VOCs have the potential to migrate from subsurface soils or groundwater into the indoor air of buildings. This is known as vapor intrusion.

January 30, 2024

GEI collected two sub-slab soil vapor samples from beneath the building at 11 Morton Street in March 2007. Based on the indoor air and soil vapor sampling results, an Exposure Pathway Mitigation Measure (EPMM) was recommended. Installation of an EPMM was completed in September 2008. The EPMM consists of a venting system beneath the basement floor, and an epoxy vapor barrier system on the basement walls. Soil vapor beneath the building is captured via multiple extraction pipes installed beneath the concrete floor in the basement. The soil vapor is re-routed from beneath the slab to the atmosphere via exterior piping that extends vertically above the roofline.

Following installation of the EPMM, GEI collected indoor air samples from the basement and first floor in October 2008, January 2009, August 2009, February 2010, February 2016, and May 2021. We have attached a summary table of the indoor air sampling results.

The indoor air sampling results confirmed that the EPMM was functioning properly and demonstrated that there is a condition of "No Significant Risk" to occupants of the building at 11 Morton Street. No Significant Risk is a standard established in the MCP to demonstrate that exposure to residual contamination will not result in unacceptable risks to human health based on regulatory thresholds.

Following installation of the EPMM, the owner of 11 Morton Street executed a Notice of Activity and Use Limitation ("AUL") that was recorded in the Middlesex South Registry of Deeds on March 19, 2010. An AUL is a document that provides information to current and future property owners and other interested parties about (1) the nature and extent of contamination on the property, (2) the appropriateness of certain uses and activities on the property, and (3) a property owner's obligations to ensure that the requirements of the AUL continue to be met.

In order to maintain a condition of No Significant Risk, the AUL for 11 Morton Street requires that the EPMM be inspected at least annually to confirm that it is functioning properly. Specific requirements to preserve the EPMM are detailed in the AUL. A copy of the AUL is enclosed with this letter.

GEI on behalf of UniFirst Corporation, would like to continue to access the Property to maintain, inspect, and monitor the system as required by the AUL. Based on a conversation with Ms. Lauren Miller on October 9, 2023, GEI scheduled the annual inspection, which took place on October 26, 2023. We will reach out via the email address provided to coordinate annual inspections in the future. Please contact me at igladstone@geiconsultants.com or 781-721-4012 to answer any of your questions.

Sincerely,

GEI CONSULTANTS, INC.



Ileen S. Gladstone, P.E., LSP, LEED AP
Senior Vice President



Christopher Coner, CHMM
Project Manager

MEF/COC:jam
Enclosures

c: Catherine Malagrida, UniFirst Corporation
MassDEP via Status Report

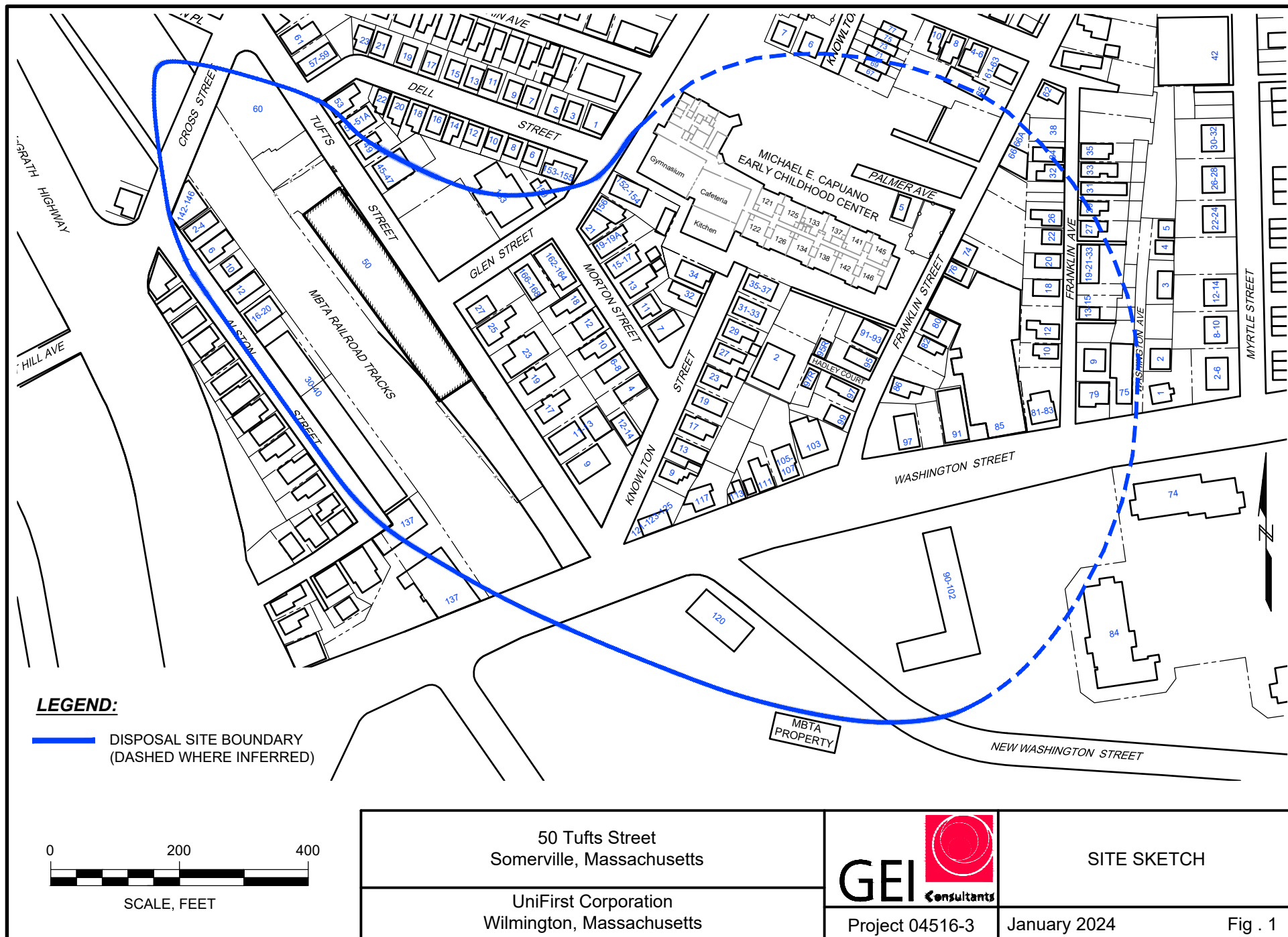


Table 1
Chemical Testing Results - Post-EPEM Installation Indoor Air
11 Morton Street
Somerville, Massachusetts

		11 Morton Street													
		Sample Location:		11 MORT-1		11 MORT-B		11MORT-1A		11MORT-1B		11MORT-B1		11MORT-B2	
		Sample Name:		10/23/08		10/23/08		1/21/09		1/21/09		1/21/09		1/21/09	
		Sample Date:		Units:											
Analyte	Method	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs)															
Carbon tetrachloride	TO-15	0.63 J	0.10 J	0.69 J	0.11 J	0.88 J	0.14 J	0.82 J	0.13 J	1.6	0.25	1.5	0.24	< 1.3	< 0.20
1,2-Dichloroethane		0.45 J	0.11 J	0.49 J	0.12 J	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	11	2.8
Tetrachloroethylene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethylene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20
1,1,1-Trichloroethane (TCA)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. The samples from January 21, 2009 (11MORT-B1 and B2, and 11MORT-1A and 1B) were field duplicates of each other.
6. Carbon tetrachloride and 1,2-dichloroethane are not contaminants of concern associated with the 50 Tufts Street disposal site and were not been detected above laboratory reporting limits at 11 Morton Street. Therefore, this compound was not analyzed in the February 2016 or May 2021 indoor air samples.
7. Samples highlighted in gray indicate most recent round of testing.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 1
Chemical Testing Results - Post-EPEM Installation Indoor Air
11 Morton Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units:		11 Morton Street (continued)													
		11MORT-B		11MORT-1		11MORT-B		11MORT-1		11MORT-B		11MORT-1		11MORT-B	
		8/11/09		2/23/10		2/23/10		2/17/16		2/17/16		5/26/21		5/26/21	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method														
Volatile Organic Compounds (VOCs)	TO-15														
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	NT	NT	NT	NT	NT	NT	NT	NT
1,2-Dichloroethane		2.0	0.49	< 0.81	< 0.20	< 0.81	< 0.20	NT	NT	NT	NT	NT	NT	NT	NT
Tetrachloroethylene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	1.7	0.25	2.2	0.33	0.190	0.028	<0.136	<0.020
Trichloroethylene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 0.21	< 0.040	< 0.21	< 0.040	0.279	0.052	0.301	0.056
1,1,1-Trichloroethane (TCA)		< 1.1	< 0.20	1.3	0.24	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	<0.109	<0.020	<0.109	<0.020

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. The samples from January 21, 2009 (11MORT-B1 and B2, and 11MORT-1A and 1B) were field duplicates of each other.
6. Carbon tetrachloride and 1,2-dichloroethane are not contaminants of concern associated with the 50 Tufts Street disposal site and were not been detected above laboratory reporting limits at 11 Morton Street. Therefore, this compound was not analyzed in the February 2016 or May 2021 indoor air samples.
7. Samples highlighted in gray indicate most recent round of testing.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.



April 16, 2010
Project 04516-3

Geotechnical
Environmental
Water Resources
Ecological

Department of Environmental Protection
Northeast Regional Office
Bureau of Waste Site Cleanup
205B Lowell Street
Wilmington, MA 01887

Dear Sir or Madam:

Re: Notice of Activity and Use Limitation (AUL)
50 Tufts Street
Somerville, Massachusetts
RTN 3-23246

On behalf of our client, UniFirst Corporation, GEI is submitting the enclosed Notice of Activity and Use Limitation (AUL) and supporting documentation for the property located at 11 Morton Street in Somerville, Massachusetts, which is a portion of the 50 Tufts Street disposal site.

The AUL was recorded with the Middlesex South District Registry of Deeds (the Registry) on March 19, 2010. The following information is included:

- Appendix A: AUL Transmittal Form (BWSC113)
- Appendix B: Certified Registry copy of the AUL
- Appendix C: Registry copy of the survey plan referenced in the AUL
- Appendix D: Copies of notification letters sent by certified mail to record interest holders
- Appendix E: Copies of notification letters to be sent to the Chief Municipal Officer, Board of Health, Zoning Board of Appeals, and Inspectional Services

A legal notice of the AUL was published in the *Somerville Journal* on April 15, 2010, and a copy of the published notice will be submitted to your office within seven days of publication.

If you have any questions, please contact me at 781-721-4000 or igladstone@geiconsultants.com.

Sincerely,

GEI CONSULTANTS, INC.



Ileen S. Gladstone, P.E., LSP, LEED AP
Vice President

JDR/ISG:csh
Enclosures

c: John R. Badey, UniFirst
Vithal V. Deshpande, City of Somerville
Irene M. Dale, Massachusetts Department of Environmental Protection
Victoria Howell and Uchenna Ngesina, Property Owners

Appendix A

AUL Transmittal Form
BWSC113



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC113

ACTIVITY & USE LIMITATION (AUL) TRANSMITTAL FORM

Release Tracking Number

Pursuant to 310 CMR 40.1056 & 40.1070 - 40.1084 (Subpart J)

3 - 23246

A. DISPOSAL SITE LOCATION:

1. Disposal Site Name: 50 TUFTS ST & PROP ACROSS THE ST

2. Street Address: 50 TUFTS ST

3. City/Town: SOMERVILLE

4. ZIP Code: 02145-4129

☒ 5. Check here if a Tier Classification Submittal has been provided to DEP for this disposal site.

☐ a. Tier 1A ☐ b. Tier 1B ☒ c. Tier 1C ☐ d. Tier 2

6. If a Tier I Permit has been issued, provide Permit Number: W085813

B. THIS FORM IS BEING USED TO: (check one)

☒ 1. Submit a certified copy of a **Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1074.

☐ 2. Submit an **Evaluation of Changes in Land Uses/Activities and/or Site Conditions after a Response Action Outcome Statement** has been filed pursuant to 310 CMR 40.1080.

☐ 3. Submit a certified copy of an **Amended Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1081

☐ 4. Submit a certified copy of a **Partial Termination of a Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1083(3).

☐ 5. Submit a certified copy of a **Termination of a Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1083(1)(d).

☐ 6. Submit a certified copy of a **Grant of Environmental Restriction**, pursuant to 310 CMR 40.1071.

☐ 7. Submit a certified copy of an **Amendment of a Grant of Environmental Restriction**, pursuant to 310 CMR 40.1081(3).

☐ 8. Submit a certified copy of a **Partial Release of a Grant of Environmental Restriction**, pursuant to 310 CMR 40.1083(2).

☐ 9. Submit a certified copy of a **Release of a Grant of Environmental Restriction**, pursuant to 310 CMR 40.1083(1)(c).

☐ 10. Submit a certified copy of a **Confirmatory Activity and Use Limitation**, pursuant to 310 CMR 40.1085(4).

11. Provide Additional RTNs:

☐ a. Check here if this AUL Submittal covers additional Release Tracking Numbers (RTNs).

b. Provide the additional Release Tracking Number(s) covered by this AUL Submittal.

☐ - ☐ -

(All sections of this transmittal form must be filled out unless otherwise noted above.
BWSC113A is required for all submittals listed above)



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC113

ACTIVITY & USE LIMITATION (AUL) TRANSMITTAL FORM

Pursuant to 310 CMR 40.1056 & 40.1070 - 40.1084 (Subpart J)

Release Tracking Number

3 - **23246**

C. AUL INFORMATION:

1. Document (per Section B) Recording and/or Registration Information:

a. Name of Registry of Deeds and/or Land Registration Office: **MIDDLESEX SOUTH DISTRICT REGISTRY OF DEEDS**

b. Book and Page Number and/or Document Number: **BOOK 54420 PAGE 465**

c. Date of recording and/or registration: **03/19/2010**

mm/dd/yyyy

2. Is the address of the property subject to AUL different from the disposal site address listed above?

☐ a. No ☒ b. Yes If yes, then fill out address section below.

3. Street Address: **11 MORTON STREET**

4. City/Town: **SOMERVILLE**

5. ZIP Code: **02145-4205**

D. PERSON SUBMITTING AUL TRANSMITTAL FORM:

1. Check all that apply: ☐ a. change in contact name ☐ b. change of address ☐ c. change in the person undertaking response actions

2. Name of Organization: **UNIFIRST CORPORATION**

3. Contact First Name: **JOHN R**

4. Last Name: **BADEY**

5. Street: **68 JONSPIN RD**

6. Title: **VICE PRESIDENT**

7. City/Town: **WILMINGTON**

8. State: **MA**

9. ZIP Code: **01887-1090**

10. Telephone: **(800) 347-7888**

11. Ext.:

12. FAX: **(978) 988-1305**

13. Is the person described in this section the owner of the property?

☐ a. Yes ☒ b. No, if checked then Section G must be filled out by at least one owner.

☐ c. Check here if providing names and addresses of any additional owners in an attachment.

E. RELATIONSHIP TO DISPOSAL SITE OF PERSON SUBMITTING AUL TRANSMITTAL FORM: (check one)

☒ 1. RP or PRP ☐ a. Owner ☐ b. Operator ☐ c. Generator ☐ d. Transporter

☒ e. Other RP or PRP Specify: **OTHER PRPS**

☐ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

☐ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ 4. Any Other Person Submitting AUL Specify: _____



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC113

ACTIVITY & USE LIMITATION (AUL) TRANSMITTAL FORM

Release Tracking Number

Pursuant to 310 CMR 40.1056 & 40.1070 - 40.1084 (Subpart J)

3 - 23246

F. REQUIRED ATTACHMENT AND SUBMITTALS:

- ☒ 1. Check here to certify that notice of the proposed Activity and Use Limitation (AUL) was given to all record-interest holders, if any, in accordance with 310 CMR 40.1074(1)(e), via certified mail.
- ☐ a. Check here if there were no record interest holders. b. Date of certified mailing: **01/19/2010**
mm/dd/yyyy
- ☒ c. Check here to certify that names and addresses of all record holders notified is attached.
- ☒ 2. Check here to certify that within 30 days of recording and/or registering the AUL, including amending, releasing or terminating the AUL, a copy of the AUL was/will be provided to the Chief Municipal Officer, the Board of Health, the Zoning Official, and the Building Code Enforcement Official in the community(ies) where the the property subject to such Activity and Use Limitation is located.
- ☒ 3. Check here to certify that within 30 days of recording and/or registering the AUL, including amending, releasing or terminating the AUL, a Legal Notice was/will be published in a newspaper with circulation in the community(ies) where the property subject to the AUL is located.
- ☒ 4. Check here to certify that within 7 days of publishing a Legal Notice in a newspaper with circulation in the community(ies) where the property subject to the AUL is located, a copy of the notice was/will be submitted to DEP.
- ☒ 5. Check here to certify that within 30 days of recording and/or registering the AUL, including amending, releasing or terminating the AUL, a certified copy of the AUL, including the LSP Opinion containing the material facts, data, and other information, will be submitted to DEP.
- ☐ 6. Check here if any non-updatable information provided on this form is incorrect, e.g. Site Address/Location Aid. Send corrections to the DEP Regional Office.
- ☐ 7. If an **Evaluation of Changes in Land Uses/Activities and/or Site Conditions after a Response Action Outcome Statement** is being submitted, check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.

G. CERTIFICATION OF OWNER OF PROPERTY, IF NOT PERSON SUBMITTING AUL TRANSMITTAL FORM:

1. I, **VICTORIA HOWELL**, attest under the pains and penalties of perjury that I am the owner of said property(ies), subject to the AUL

2. **Victoria Howell** 3. Date: **10-27-09**
Signature mm/dd/yyyy

4. Name of Organization: _____

5. Contact First Name: **VICTORIA** 6. Last Name: **HOWELL ET. AL.**

7. Street: **11 MORTON STREET** 8. Title: _____

9. City/Town: **SOMERVILLE** 10. State: **MA** 11. ZIP Code: **02145-4205**

12. Telephone: **(617) 776-2079** 13. Ext.: _____ 14. FAX: _____



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC113

ACTIVITY & USE LIMITATION (AUL) TRANSMITTAL FORM

Release Tracking Number

Pursuant to 310 CMR 40.1056 & 40.1070 - 40.1084 (Subpart J)

3 - 23246

F. REQUIRED ATTACHMENT AND SUBMITTALS:

- ☒ 1. Check here to certify that notice of the proposed Activity and Use Limitation (AUL) was given to all record-interest holders, if any, in accordance with 310 CMR 40.1074(1)(e), via certified mail.
- ☐ a. Check here if there were no record interest holders. b. Date of certified mailing: **01/19/2010**
mm/dd/yyyy
- ☒ c. Check here to certify that names and addresses of all record holders notified is attached.
- ☒ 2. Check here to certify that within 30 days of recording and/or registering the AUL, including amending, releasing or terminating the AUL, a copy of the AUL was/will be provided to the Chief Municipal Officer, the Board of Health, the Zoning Official, and the Building Code Enforcement Official in the community(ies) where the the property subject to such Activity and Use Limitation is located.
- ☒ 3. Check here to certify that within 30 days of recording and/or registering the AUL, including amending, releasing or terminating the AUL, a Legal Notice was/will be published in a newspaper with circulation in the community(ies) where the property subject to the AUL is located.
- ☒ 4. Check here to certify that within 7 days of publishing a Legal Notice in a newspaper with circulation in the community(ies) where the property subject to the AUL is located, a copy of the notice was/will be submitted to DEP.
- ☒ 5. Check here to certify that within 30 days of recording and/or registering the AUL, including amending, releasing or terminating the AUL, a certified copy of the AUL, including the LSP Opinion containing the material facts, data, and other information, will be submitted to DEP.
- ☐ 6. Check here if any non-updatable information provided on this form is incorrect, e.g. Site Address/Location Aid. Send corrections to the DEP Regional Office.
- ☐ 7. If an **Evaluation of Changes in Land Uses/Activities and/or Site Conditions after a Response Action Outcome Statement** is being submitted, check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.

G. CERTIFICATION OF OWNER OF PROPERTY, IF NOT PERSON SUBMITTING AUL TRANSMITTAL FORM:

1. I, Uchenna Ngesing, attest under the pains and penalties of perjury that I am the owner of said property(ies), subject to the AUL

2. Uchenna Ngesing 3. Date: 11/5/09
Signature mm/dd/yyyy

4. Name of Organization: _____

5. Contact First Name: VICTORIA 6. Last Name: HOWELL ET. AL.

7. Street: 11 MORTON STREET 8. Title: _____

9. City/Town: SOMERVILLE 10. State: MA 11. ZIP Code: 02145-4205

12. Telephone: (617) 776-2079 13. Ext.: _____ 14. FAX: _____



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC113

ACTIVITY & USE LIMITATION (AUL) TRANSMITTAL FORM

Release Tracking Number

Pursuant to 310 CMR 40.1056 & 40.1070 - 40.1084 (Subpart J)

3

- 23246

H. CERTIFICATION OF PERSON MAKING SUBMITTAL:

1. I, John R BADEY, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

Pursuant to 310 CMR 40.1074 (1)(f), I also hereby certify under penalties of perjury, that either I (if person submitting the AUL Transmittal Form is the property owner), or

VICTORIA HOWELL & UCHENNA C-NGESINA

2. Name of Property Owner

am/is identified on the Notice of AUL as the owner of the property subject to the AUL, owned such property on the date that the AUL was recorded and /or registered

3. By:

John R BADEY
Signature

4. Title:

VICE PRESIDENT

5. For:

UNIFIRST CORPORATION

(Name of person or entity recorded in Section D)

6. Date:

3/19/2010
mm/dd/yyyy

☐ 7. Check here if the address of the person providing certification is different from address recorded in Section D.

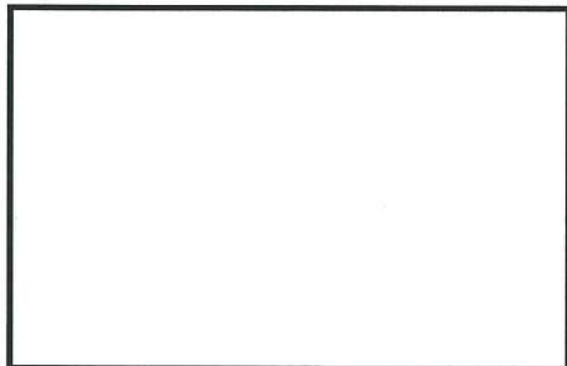
8. Street: _____

9. City/Town: _____ 10. State: _____ 11. ZIP Code: _____

12. Telephone: _____ 13. Ext.: _____ 14. FAX: _____

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO \$10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY:)



Supplement to BWSC113, Section F.1.c.

In accordance with the Massachusetts Contingency Plan (MCP; 310 CMR 40.0000), and on behalf of UniFirst Corporation, we prepared letters dated January 19, 2010, to notify the following record interest holders that a Notice of Activity and Use Limitation (AUL) was going to be placed on the property located at 11 Morton Street in Somerville, Massachusetts (the Property).

Victoria Howell
Uchenna C-Ngesina
11 Morton Street, Apt. 2
Somerville, MA 02145-4205

John R. Badey
Vice President
UniFirst Corporation
68 Jonspin Road
Wilmington, MA 01887-1090

Mortgage Electronic Registration Systems, Inc.
P.O. Box 2026
Flint, MI 48501-2026

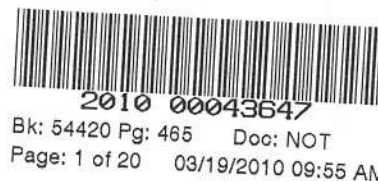
Said Hojr
11 Morton Street, Apt. 1
Somerville, MA 02145-4205

Appendix B

Certified Copy of AUL

120

Form 1075



NOTICE OF ACTIVITY AND USE LIMITATION

M.G.L. c. 21E, § 6 and 310 CMR 40.0000

Disposal Site Name: 50 Tufts Street, Somerville, Massachusetts ✓
DEP Release Tracking No.(s): 3-23246

This Notice of Activity and Use Limitation ("Notice") is made as of this 19th day of MARCH, 2010, by Victoria Howell (a/k/a Victoria C-Ngesina) and Uchenna C-Ngesina of 11 Morton Street, Somerville, Massachusetts, together with their successors and assigns (collectively "Owner").

WITNESSETH:

WHEREAS, Victoria Howell and Uchenna C-Ngesina are the owners in fee simple of that certain parcel of land located at 11 Morton Street in Somerville, Middlesex County, Massachusetts with the buildings and improvements thereon, pursuant to a deed recorded with the Middlesex South District Registry of Deeds in Book 26081, Page 090; ✓

WHEREAS, said parcel of land, which is more particularly bounded and described in Exhibit A, attached hereto and made a part hereof ("Property") is subject to this Notice of Activity and Use Limitation. The Property is shown on a plan recorded in the Middlesex South District Registry of Deeds in Plan Book 64, Plan 34;

WHEREAS, the Property comprises part of a disposal site as the result of a release of oil and/or hazardous material. Exhibit B is a sketch plan showing the relationship of the Property subject to this Notice of Activity and Use Limitation to the boundaries of said disposal site existing within the limits of the Property and to the extent such boundaries have been established. Exhibit B is attached hereto and made a part hereof; and

WHEREAS, one or more response actions have been selected for a Portion of the Disposal Site in accordance with M.G.L. c. 21E ("Chapter 21E") and the Massachusetts Contingency Plan, 310 CMR 40.0000 ("MCP"). Said response actions are based upon (a) the restriction of human access to and contact with oil and/or hazardous material in soil and/or (b) the restriction of certain activities occurring in, on, through, over, or under the Property. The basis for such restrictions is set forth in an Activity and Use Limitation Opinion ("AUL Opinion"), dated March 10, 2010, (which is attached hereto as Exhibit C and made a part hereof);

NOW, THEREFORE, notice is hereby given that the activity and use limitations set forth in said AUL Opinion are as follows:

1. Activities and Uses Consistent with the AUL Opinion. The AUL Opinion provides that a condition of No Significant Risk to health, safety, public welfare, or the environment exists for any foreseeable period of time (pursuant to 310 CMR 40.0000) so long as any of the following activities and uses occur on the Property:

- (i) Any use of the existing building located on the Property, including use of the building as a residence, so long as the vapor barrier and venting system comprising the Exposure Pathway Elimination Measure ("EPEM") are maintained and, if an electric fan is added to the EPEM, such fan operates continuously;
- (ii) Activities and uses which are not identified by this Notice as being inconsistent with maintaining a condition of No Significant Risk;
- (iii) Such other activities or uses which, in the Opinion of an LSP, shall present no greater risk of harm to health, safety, public welfare, or the environment than the activities and uses set forth in this Paragraph; and
- (iv) Such other activities and uses not identified as being Activities and Uses Inconsistent with the AUL.

2. Activities and Uses Inconsistent with the AUL Opinion. Activities and uses which are inconsistent with the objectives of this Notice of Activity and Use Limitation, and which, if implemented at the Property, may result in a significant risk of harm to health, safety, public welfare, or the environment or in a substantial hazard, are as follows:

- (i) In the basement, removal or damage of the concrete floor, the overlying epoxy coating, the vapor barrier, the sub-slab venting system, and/or the protective stucco wall finish;
- (ii) In the basement, any activities which may damage and/or compromise the concrete floor, the overlying epoxy coating, the vapor barrier, the sub-slab venting system, and/or the protective stucco wall finish;
- (iii) In the event an electric fan is added to the EPEM, removal or damage of such fan;
- (iv) In the event an electric fan is added to the EPEM, shutting down, turning off, or removing electrical power to the fan, or any other activity that would make such fan inoperable;
- (v) Any activities which may damage and/or compromise the ventilation piping located on the exterior of the building; and
- (vi) Construction of any occupied structure at the Property without the installation of an EPEM and subsequent indoor air sampling to confirm its effectiveness in preventing or mitigating vapor intrusion into the structure.

3. Obligations and Conditions Set Forth in the AUL Opinion. Obligations and/or conditions to be undertaken and/or maintained at the Property to maintain a

condition of No Significant Risk as set forth in the AUL Opinion shall include the following:

- (i) In the basement, the integrity of the concrete floor, the overlying epoxy floor coating, the vapor barrier, the sub-slab venting system, and the protective stucco wall finish of the existing building must be preserved and the elements of the EPEM must not be damaged or altered;
- (ii) On the exterior of the building, the integrity of the ventilation piping must be preserved, and the elements of the piping must not be damaged or altered;
- (iii) In the event an electric fan is added to the EPEM, power must be maintained to such fan and the fan may not be shut down;
- (iv) In the event an electric fan is added to the EPEM, notification must be provided to UniFirst Corporation, together with its successors and assigns and/or its agents, if such fan becomes inoperable, and access must be provided to UniFirst Corporation, together with its successors and assigns and/or its agents, to repair or replace the fan as necessary;
- (v) Access must be provided, at least annually, to UniFirst Corporation, together with its successors and assigns and/or its agents, to inspect the EPEM for damage and, to the extent necessary to continue the EPEM's effectiveness in preventing or mitigating vapor intrusion into the building, to conduct indoor air testing and/or repair or replace the vapor barrier, venting system, and/or electric fan (to the extent such a fan is added to the EPEM); and
- (vi) Any future construction of an occupied structure at the Property must include the installation of an EPEM to prevent or mitigate vapor intrusion into the structure. The design of the EPEM must be incorporated into the design and construction of the future structure and must be evaluated by an LSP. Follow-up indoor air testing must be conducted to confirm the effectiveness of the EPEM in preventing or mitigating vapor intrusion into the structure.

4. Proposed Changes in Activities and Uses. Any proposed changes in activities and uses at the Property which may result in higher levels of exposure to oil and/or hazardous material than currently exist shall be evaluated by an LSP who shall render an Opinion, in accordance with 310 CMR 40.1080 *et seq.*, as to whether the proposed changes will present a significant risk of harm to health, safety, public welfare, or the environment. Any and all requirements set forth in the Opinion to meet the objective of this Notice shall be satisfied before any such activity or use is commenced.

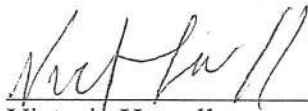
5. Violation of a Response Action Outcome. The activities, uses, and/or exposures upon which this Notice is based shall not change at any time to cause a significant risk of harm to health, safety, public welfare, or the environment or to create substantial hazards due to exposure to oil and/or hazardous material without the prior evaluation by an LSP in accordance with 310 CMR 40.1080 *et seq.*, and without additional response actions, if necessary, to achieve or maintain a condition of No Significant Risk or to eliminate substantial hazards.

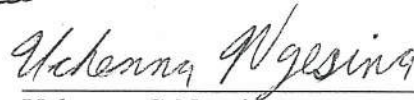
If the activities, uses, and/or exposures upon which this Notice is based change without the prior evaluation and additional response actions determined to be necessary by an LSP in accordance with 310 CMR 40.1080 *et seq.*, the owner or operator of the Property subject to this Notice at the time that the activities, uses and/or exposures change, shall comply with the requirements set forth in 310 CMR 40.0020.

6. Incorporation Into Deeds, Mortgages, Leases, and Instruments of Transfer. This Notice shall be incorporated either in full or by reference into all future deeds, easements, mortgages, leases, licenses, occupancy agreements, or any other instrument of transfer, whereby an interest in and/or a right to use the Property or a portion thereof is conveyed.

Owner hereby authorizes and consents to the filing and recordation and/or registration of this Notice, said Notice to become effective when executed under seal by the undersigned LSP, and recorded and/or registered with the appropriate Registry(ies) of Deeds and/or Land Registration Office(s).

WITNESS the execution hereof under seal this ~~14th~~^{22nd} day of October, 2009.


Victoria Howell


Uchenna C-Ngesina

COMMONWEALTH OF MASSACHUSETTS

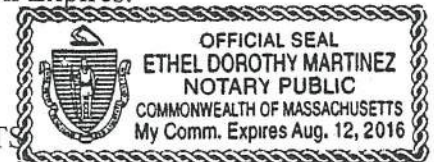
Middlesex, ss

October 14, 2009

On this 14 day of October, 2009, before me, the undersigned notary public, personally appeared Victoria Howell, proved to me through satisfactory evidence of identification, which were Mass. drivers license, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.

Ethel Dorothy Martinez
Notary Public

My Commission Expires:



COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss

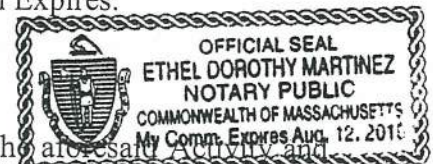
October 22, 2009

On this 22 day of October, 2009, before me, the undersigned notary public, personally appeared Uchenna Ngesina, proved to me through satisfactory evidence of identification, which were U.S. Passport, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.



Ethel Dorothy Martinez
Notary Public

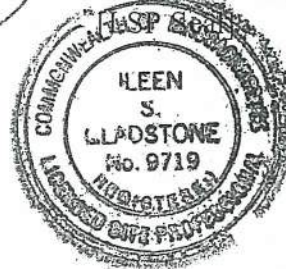
My Commission Expires:



The undersigned LSP hereby certifies that she executed the aforesaid Activity and Use Limitation Opinion attached hereto as Exhibit C and made a part hereof and that in her Opinion this Notice of Activity and Use Limitation is consistent with the terms set forth in said Activity and Use Limitation Opinion.

Date: 3/10/2010

Ileen S. Gladstone, P.E., LSP, LEED AP



COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss

March 10, 2010

On this 10th day of March, 2010, before me, the undersigned notary public, personally appeared John S. Gladstone proved to me through satisfactory evidence of identification, which were personally known to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.

Roy C. Cummings Jr.
Notary Public
My Commission Expires: June 10, 2016

Upon recording, return to:

Victoria Howell and Uchenna C-Ngesina
11 Morton Street, Apt. 2
Somerville, MA 02145-4205



Exhibit A

Metes and Bounds Description of AUL Area



BK 2608-1-090

QUITCLAIM DEED

I, THERESA N. McDONALD,

of SOMERVILLE

MIDDLESEX COUNTY, MASSACHUSETTS,

in consideration of \$142,000.00

grant to: Victoria C-Ngesina and Uchenna C-Ngesina

of Somerville, Middlesex County, Massachusetts

as Tenants in Common

with quitclaim covenants

A certain parcel of land with the buildings thereon situated in said Somerville, being lot #15 on a plan of land belonging to Charles Robinson by George A. Kimball, recorded with Middlesex South District Deeds, book of plans 64, plan 34, and bounded and described as follows:

SOUTHWESTERLY by Morton Street, forty (40) feet;

NORTHWESTERLY by lot 14 on said plan, forty-eight and 66/100 (48.66) feet;

NORTHEASTERLY by land now or late of heirs of Nathan Tufts, twenty-five and 7/100 (25.07) feet; and

SOUTHEASTERLY by lot 16 on said plan, fifty-nine and 31/100 (59.31) feet.

NORTHERLY by land of said heirs, eighteen and 33/100 (18.33) feet.

Containing 2047 square feet of land more or less according to said plan, and being the same premises conveyed by Winter Hill Co-operative Federal Savings and Loan Association by deed dated July 29, 1943, recorded with Middlesex Registry of Deeds, Southern District, Book 6697, Page 409.

For my title, see Deed dated March 1, 1978, recorded with Middlesex South Registry of Deeds, Book 13402, Page 342.

WITNESS my hand and seal this 26 day of February, 1996.


 THERESA N. McDONALD

COMMONWEALTH OF MASSACHUSETTS

MIDDLESEX, SS

2/26/96

Then personally appeared the above named THERESA N. McDONALD and acknowledged the foregoing instrument to be her free act and deed, before me:


 KENNETH J. KIMMON, NOTARY PUBLIC

COMMISSION EXPIRES: 8/3/2001

*** MASS. EXCISE TAX: 647.52 ***

*** MASS. EXCISE TAX: 647.52 ***

25.00

653

MSD 02/27/96 01:48:06

Grantee + LOCUS: 11 MORTON STREET, SOMERVILLE, MASSACHUSETTS

TAX 647.52
CASH 647.5292134815 14:45
EXCISE TAXRECORDED 15
MIDDLESEX SOUTH
32/27/96

Exhibit B

Sketch Plan of Disposal Site Boundary (Exhibit B-1)
Sketch Plan of AUL Area (Exhibit B-2)





Activity and Use Limitation
50 Tufts Street
Somerville, Massachusetts
UniFirst Corporation
Wilmington, Massachusetts

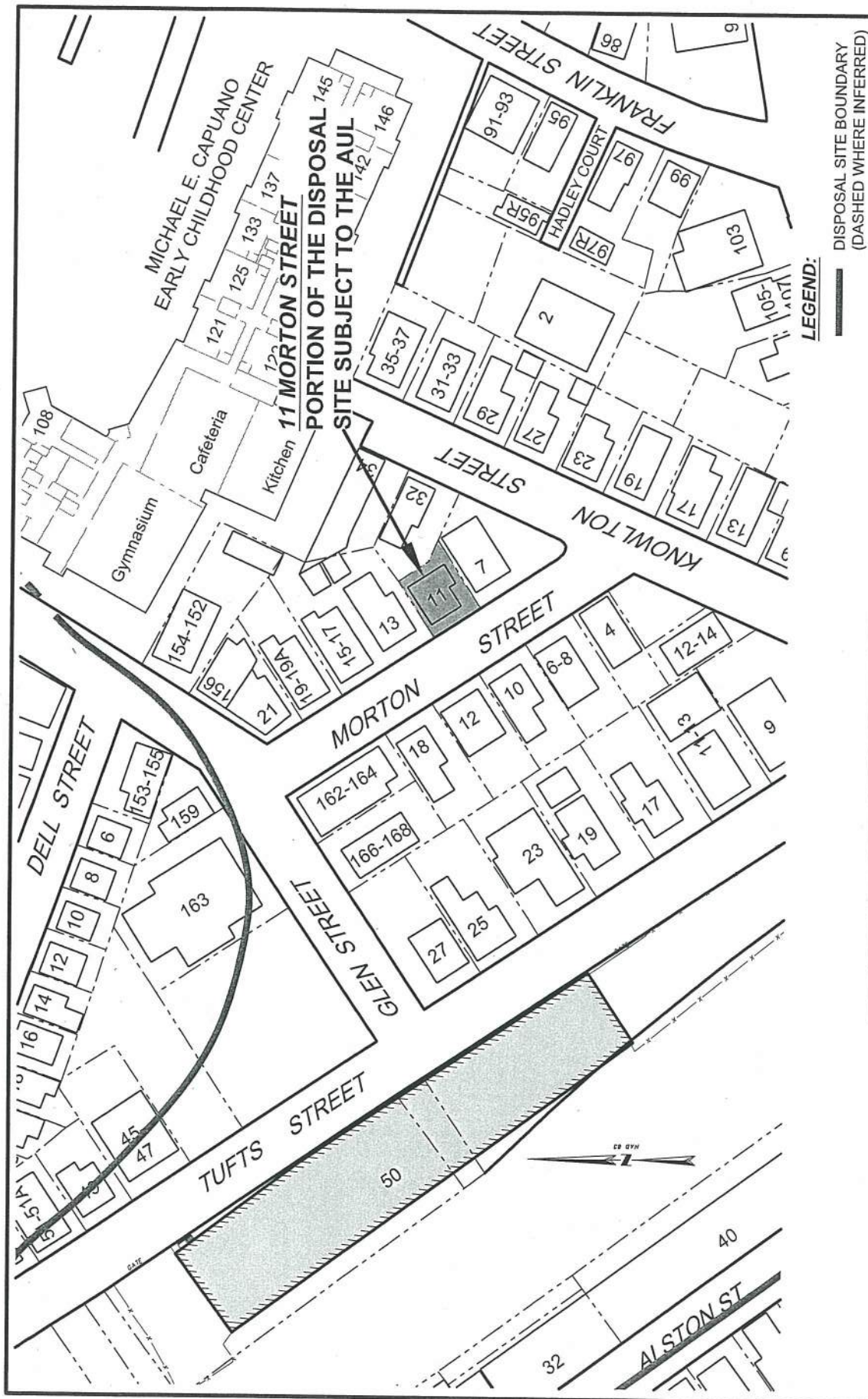


SITE SKETCH

Project 04516-3

June 2009

Exhibit B-1



SITE SKETCH

Project 04516-3 November 2009 Exhibit B-2

N:\04516\Drafting\04516-3\AULs\045163 - 11 MORTON

Exhibit C
LSP AUL Opinion



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC113A

ACTIVITY & USE LIMITATION (AUL) OPINION FORM

Release Tracking Number

Pursuant to 310 CMR 40.1056 & 40.1070 - 40.1084 (Subpart J)

3 - 23246

A. DISPOSAL SITE LOCATION:

1. Disposal Site Name: 50 TUFTS ST & PROP ACROSS THE ST

2. Street Address: 50 TUFTS ST

3. City/Town: SOMERVILLE

4. ZIP Code: 02145-4129

B. THIS FORM IS BEING USED TO: (check one)

- ☒ 1. Provide the LSP Opinion for a **Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1074.
- ☐ 2. Provide the LSP Opinion for an **Evaluation of Changes in Land Uses/Activities and/or Site Conditions after a Response Action Outcome Statement**, pursuant to 310 CMR 40.1080. Include BWSC113A as an attachment to BWSC113. Section A and C do not need to be completed.
- ☐ 3. Provide the LSP Opinion for an **Amended Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1081(4).
- ☐ 4. Provide the LSP Opinion for a **Partial Termination of a Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1083(3).
- ☐ 5. Provide the LSP Opinion for a **Termination of a Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1083(1)(d).
- ☐ 6. Provide the LSP Opinion for a **Grant of Environmental Restriction**, pursuant to 310 CMR 40.1071.
- ☐ 7. Provide the LSP Opinion for an **Amendment of a Grant of Environmental Restriction**, pursuant to 310 CMR 40.1081(3).
- ☐ 8. Provide the LSP Opinion for a **Partial Release of a Grant of Environmental Restriction**, pursuant to 310 CMR 40.1083(2).
- ☐ 9. Provide the LSP Opinion for a **Release of a Grant of Environmental Restriction**, pursuant to 310 CMR 40.1083(1)(c).
- ☐ 10. Provide the LSP Opinion for a **Confirmatory Activity and Use Limitation**, pursuant to 310 CMR 40.1085(4).

(Unless otherwise noted above, all sections of this form (BWSC113A) must be completely filled out, printed, stamped, signed with black ink and attached as an exhibit to the AUL Document to be recorded and/or registered with the Registry of Deeds and/or Land Registration Office.)

C. AUL INFORMATION:

1. Is the address of the property subject to AUL different from the disposal site address listed above?

☐ a. No ☒ b. Yes If yes, then fill out address section below.

2. Street Address: 11 MORTON STREET

3. City/Town: SOMERVILLE

4. ZIP Code: 02145-4205



ACTIVITY & USE LIMITATION (AUL) OPINION FORM

Release Tracking Number

Pursuant to 310 CMR 40.1056 & 40.1070 - 40.1084 (Subpart J)

3 - 23246

D. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> if Section B indicates that a **Notice of Activity and Use Limitation** is being registered and/or recorded, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1074;

> if Section B indicates that an **Evaluation of Changes in Land Uses/Activities and/or Site Conditions after a Response Action Outcome Statement** is being submitted, this evaluation was developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1080;

> if Section B indicates that an **Amended Notice of Activity and Use Limitation or Amendment to a Grant of Environmental Restriction** is being registered and/or recorded, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 40.1081;

> if Section B indicates that a **Termination or a Partial Termination of a Notice of Activity and Use Limitation, or a Release or Partial Release of a Grant of Environmental Restriction** is being registered and/or recorded, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1083;

> if Section B indicates that a **Grant of Environmental Restriction** is being registered and/or recorded, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1071;

> if Section B indicates that a **Confirmatory Activity and Use Limitation** is being registered and/or recorded, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1085(4);

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #: 9719

2. First Name: ILEEN S

3. Last Name: GLADSTONE

4. Telephone: (781) 721-4012

5. Ext.:

6. FAX:

7. Signature:

8. Date: 3/10/2010
mm/dd/yyyy

9. LSP Stamp:



EXHIBIT C

March 10, 2010

Reference: Activity and Use Limitation Opinion
11 Morton Street
Somerville, Massachusetts
DEP RTN 3-23246

Introduction

This Licensed Site Professional (LSP) Opinion for a Notice of Activity and Use Limitation (AUL) was prepared by GEI Consultants, Inc. (GEI) for the property located at 11 Morton Street in Somerville, Massachusetts (the Property). The Property comprises a portion of the 50 Tufts Street disposal site (the Site) assigned Release Tracking Number (RTN) 3-23246 by the Massachusetts Department of Environmental Protection (DEP). In 2002, a historical release of chlorinated volatile organic compounds (VOCs) to soil and groundwater at the Site was reported to the DEP. Subsequent investigations at the Site identified chlorinated VOCs in indoor air at the Site, and in groundwater and indoor air at residential properties in the vicinity of the 50 Tufts Street property, including 11 Morton Street. The Property and the 50 Tufts Street property are shown on Fig. 1. UniFirst Corporation of Wilmington, Massachusetts is conducting response actions at the Site.

This LSP Opinion was prepared in accordance with the Massachusetts Contingency Plan (MCP; 310 CMR 40.1074) and the DEP Guidance on Implementing AULs (May 1999). This AUL Opinion applies to the entire Property, as defined in Exhibit A and indicated on Exhibit B of the AUL.

This LSP Opinion provides the following information:

- Why an AUL is appropriate to achieve and/or maintain a condition of No Significant Risk;
- Activities and uses to be prohibited and/or limited;
- Activities and uses to be permitted; and
- Obligations and conditions necessary to meet the objectives of the AUL.

Background

The Property is located in a commercial/residential zoning district, and fronts Morton Street to the southwest, and is bounded by residential property to the north, south, and northeast. The Property is located within the Site boundary associated with a historic release of chlorinated VOCs to soil and groundwater at 50 Tufts Street, located southwest of the Property across Tufts Street. From approximately 1955 to approximately 2002, 50 Tufts Street was used for storage and distribution of industrial chemicals, laundry supplies, and dry cleaning supplies. Chemicals stored at and delivered to and from 50 Tufts Street included chlorinated solvents. These chlorinated VOCs – particularly tetrachloroethylene (PCE), trichloroethylene (TCE), and 1,1,1-trichloroethane (TCA) – have been detected in soil, soil vapor, indoor air, and groundwater at 50 Tufts Street.

Based on the results of assessments conducted to date, the Site includes the 50 Tufts Street property, together with portions of properties in the neighborhood to the east and west. Based on multiple rounds of groundwater measurements, the general direction of groundwater flow at the Site is to the northeast across Tufts Street towards Knowlton and Franklin Streets.

Based on groundwater, soil, soil vapor, and indoor air sampling results, GEI identified a several-block area near 50 Tufts Street for evaluation of vapor intrusion as a potential exposure pathway. The evaluation included a program of sub-slab soil vapor testing and indoor air testing. Indoor air testing at the Property indicated the presence of chlorinated VOCs, particularly PCE, and the likelihood of a complete vapor intrusion exposure pathway. The residence at the Property includes a basement.

To eliminate or mitigate the exposure pathway, UniFirst Corporation installed an Exposure Pathway Elimination Measure (EPEM) at the Property. In the basement, the EPEM consists of a vapor trench installed around the perimeter of the basement floor and a vapor barrier system covering the floor and the fieldstone foundation walls, together with a venting system beneath the vapor barrier. Sketches of the EPEM installed in the basement are shown in Fig. 2.

Perforated polyvinyl chloride (PVC) pipe was installed in the perimeter trench and the trench was backfilled with crushed stone and capped with 3 inches of concrete to match the existing slab grade. The trench piping was connected to above-slab ventilation piping that extends up to the floor joists, exits the building above the sill, and extends above the roofline. The EPEM also includes a wall vapor barrier system comprised of an approximately 1-inch-thick layer of cementitious stucco. The modified basement walls and floor are coated with a two-part epoxy vapor barrier. Soil vapor is captured by the vapor transmission layer and vapor trench piping and ventilated to the outdoor ambient air, bypassing the pathway through the slab into indoor air. The ventilation system is designed so that an electric powered fan may be added to facilitate the flow of soil vapor through the ventilation system. A fan will be added to the ventilation system if and when an LSP determines that such facilitation of flow is necessary or appropriate.

Indoor air testing conducted after the installation of the EPEM did not detect VOCs above laboratory method reporting limits. Installation of the EPEM achieved a condition of No Significant Risk at 11 Morton Street.

Why an AUL is appropriate to achieve and/or maintain a condition of No Significant Risk at the Site:

The EPEM eliminated or mitigated the exposure pathway for vapor intrusion of chlorinated VOCs into the indoor air at 11 Morton Street and achieved a condition of No Significant Risk. In order to maintain a condition of No Significant Risk, the integrity of the EPEM must be preserved. Therefore, this AUL is necessary to define the restricted and permitted activities to maintain a condition of No Significant Risk. The AUL is applicable to the entire Property.

AUL Restrictions

The purpose of the AUL is to preserve the integrity of the EPEM because it eliminates or mitigates the exposure pathway and achieves and/or maintains a condition of No Significant Risk.

The following are the activities and uses that will be permitted and prohibited at the Property subject to this AUL.

1. Activities and Uses Consistent with the AUL Opinion. The AUL Opinion provides that a condition of No Significant Risk to health, safety, public welfare, or the environment exists for any foreseeable period of time (pursuant to 310 CMR 40.0000) so long as any of the following activities and uses occur on the Property:

- (i) Any use of the existing building located on the Property, including use of the building as a residence, so long as the vapor barrier and venting system

comprising the EPEM are maintained and, if an electric fan is added to the EPEM, such fan operates continuously;

- (ii) Activities and uses which are not identified by this Notice as being inconsistent with maintaining a condition of No Significant Risk;
- (iii) Such other activities or uses which, in the Opinion of an LSP, shall present no greater risk of harm to health, safety, public welfare, or the environment than the activities and uses set forth in this Paragraph; and
- (iv) Such other activities and uses not identified as being Activities and Uses Inconsistent with the AUL.

2. Activities and Uses Inconsistent with the AUL Opinion. Activities and uses which are inconsistent with the objectives of this Notice of Activity and Use Limitation, and which, if implemented at the Property, may result in a significant risk of harm to health, safety, public welfare, or the environment or in a substantial hazard, are as follows:

- (i) In the basement, removal or damage of the concrete floor, the overlying epoxy coating, the vapor barrier, the sub-slab venting system, and/or the protective stucco wall finish;
- (ii) In the basement, any activities which may damage and/or compromise the concrete floor, the overlying epoxy coating, the vapor barrier, the sub-slab venting system, and/or the protective stucco wall finish;
- (iii) In the event an electric fan is added to the EPEM, removal or damage of such fan;
- (iv) In the event an electric fan is added to the EPEM, shutting down, turning off, or removing electrical power to the fan, or any other activity that would make such fan inoperable;
- (v) Any activities which may damage and/or compromise the ventilation piping located on the exterior of the building; and
- (vi) Construction of any occupied structure at the Property without the installation of an EPEM and subsequent indoor air sampling to confirm its effectiveness in preventing or mitigating vapor intrusion into the structure.

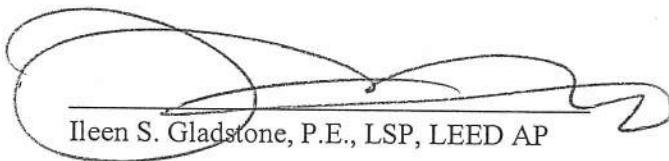
3. Obligations and Conditions Set Forth in the AUL Opinion. Obligations and/or conditions to be undertaken and/or maintained at the Property to maintain a condition of No Significant Risk as set forth in the AUL Opinion shall include the following:

- (i) In the basement, the integrity of the concrete floor, the overlying epoxy floor coating, the vapor barrier, the sub-slab venting system, and the protective stucco wall finish of the existing building must be preserved and the elements of the EPEM must not be damaged or altered;
- (ii) On the exterior of the building, the integrity of the ventilation piping must be preserved, and the elements of the piping must not be damaged or altered;
- (iii) In the event an electric fan is added to the EPEM, power must be maintained to such fan and the fan may not be shut down;

- (iv) In the event an electric fan is added to the EPDM, notification must be provided to UniFirst Corporation, together with its successors and assigns and/or its agents, if such fan becomes inoperable, and access must be provided to UniFirst Corporation, together with its successors and assigns and/or its agents, to repair or replace the fan as necessary;
- (v) Access must be provided, at least annually, to UniFirst Corporation, together with its successors and assigns and/or its agents, to inspect the EPDM for damage and, to the extent necessary to continue the EPDM's effectiveness in preventing or mitigating vapor intrusion into the building, to conduct indoor air testing and/or repair or replace the vapor barrier, venting system, and/or electric fan (to the extent such a fan is added to the EPDM); and
- (vi) Any future construction of an occupied structure at the Property must include the installation of an EPDM to prevent or mitigate vapor intrusion into the structure. The design of the EPDM must be incorporated into the design and construction of the future structure and must be evaluated by an LSP. Follow-up indoor air testing must be conducted to confirm the effectiveness of the EPDM in preventing or mitigating vapor intrusion into the structure.

Summary and Conclusions

This LSP Opinion has been prepared to support the implementation of a Notice of AUL for a release of oil or hazardous materials at the Property. Based on the results of the Risk Characterization and with the implementation of an AUL on the Property, it is GEI's opinion that a condition of No Significant Risk will be maintained at the Property.


Ileen S. Gladstone, P.E., LSP, LEED AP

Date: 3/10/2010

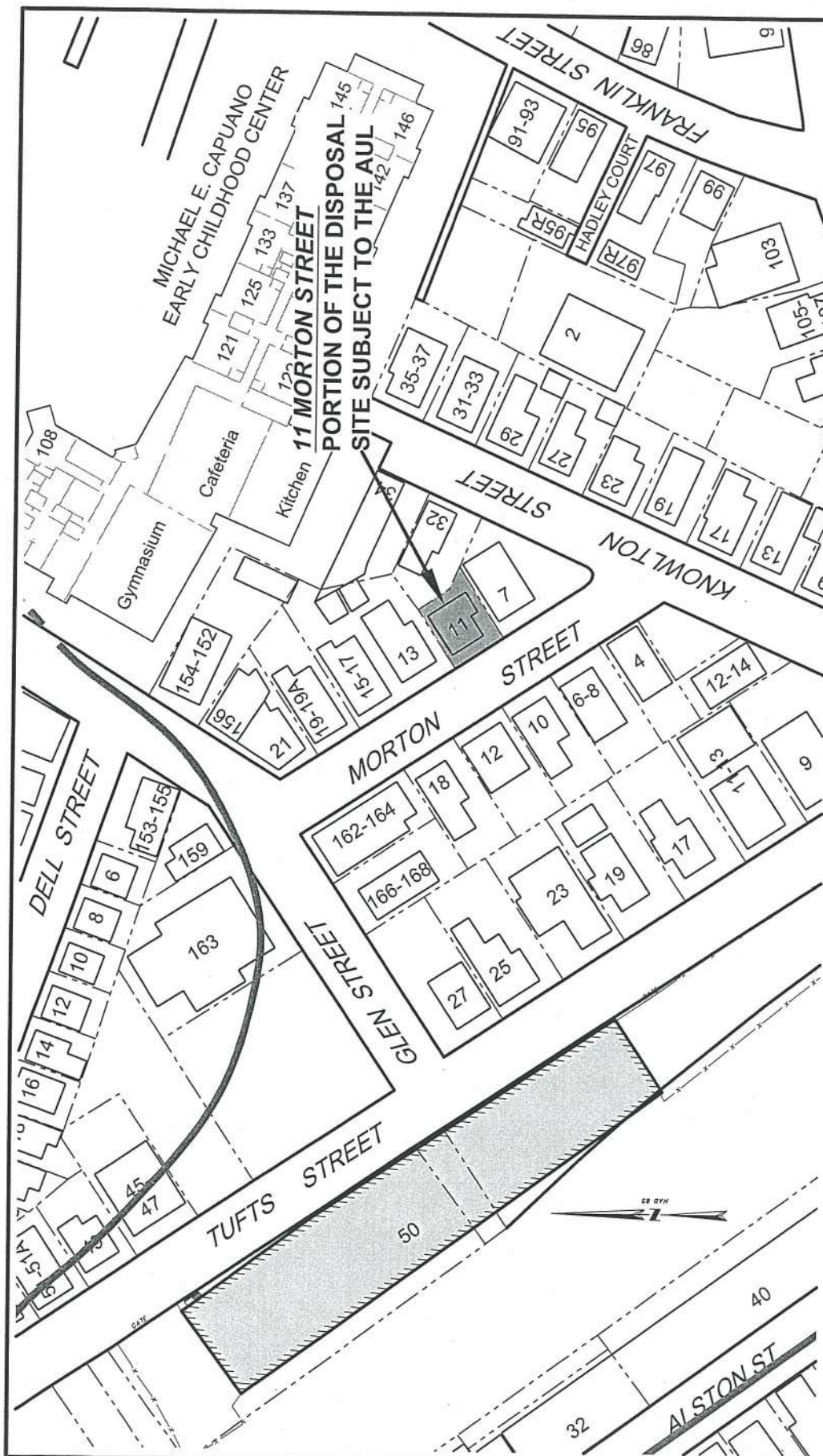


This AUL Opinion is based on the information presented in:

DEP (2007). The Massachusetts Contingency Plan (MCP) 310 CMR 40.0000, effective December 14.

GEI (2008). "Phase II Comprehensive Site Assessment, Method 3 Risk Characterization, and Phase III Remedial Action Plan, 50 Tufts Street, Somerville, Massachusetts," prepared for UniFirst Corporation, July 14.

GEI (2009). "Immediate Response Action Status Report No. 7 and Remedial Monitoring Report No. 10, 50 Tufts Street, Somerville, Massachusetts," prepared for UniFirst Corporation, May 11.



Activity and Use Limitation
50 Tufts Street
Somerville, Massachusetts
UniFirst Corporation
Wilmington, Massachusetts

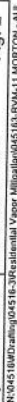


PORTION OF THE
DISPOSAL SITE SUBJECT
TO THE AUL

Project 04516-3 November 2009

Fig. 1

N:\04516\Drafting\04516-3\AULs\045163 - 11 MORTON



MAR 19 2010

COMMONWEALTH OF MASSACHUSETTS

MIDDLESEX S. S. _____

SOUTH DIST. REGISTRY OF DEEDS

CAMBRIDGE, MA

I HEREBY CERTIFY THE FOREGOING

IS A TRUE COPY OF A PAPER

RECORDED IN BOOK 54420

PAGE 465

Eugene C. Brune
REGISTER

Appendix C

Survey Plan

PLAN OF BUILDING LOTS

IN

SOMERVILLE, MASS.

OWNED BY

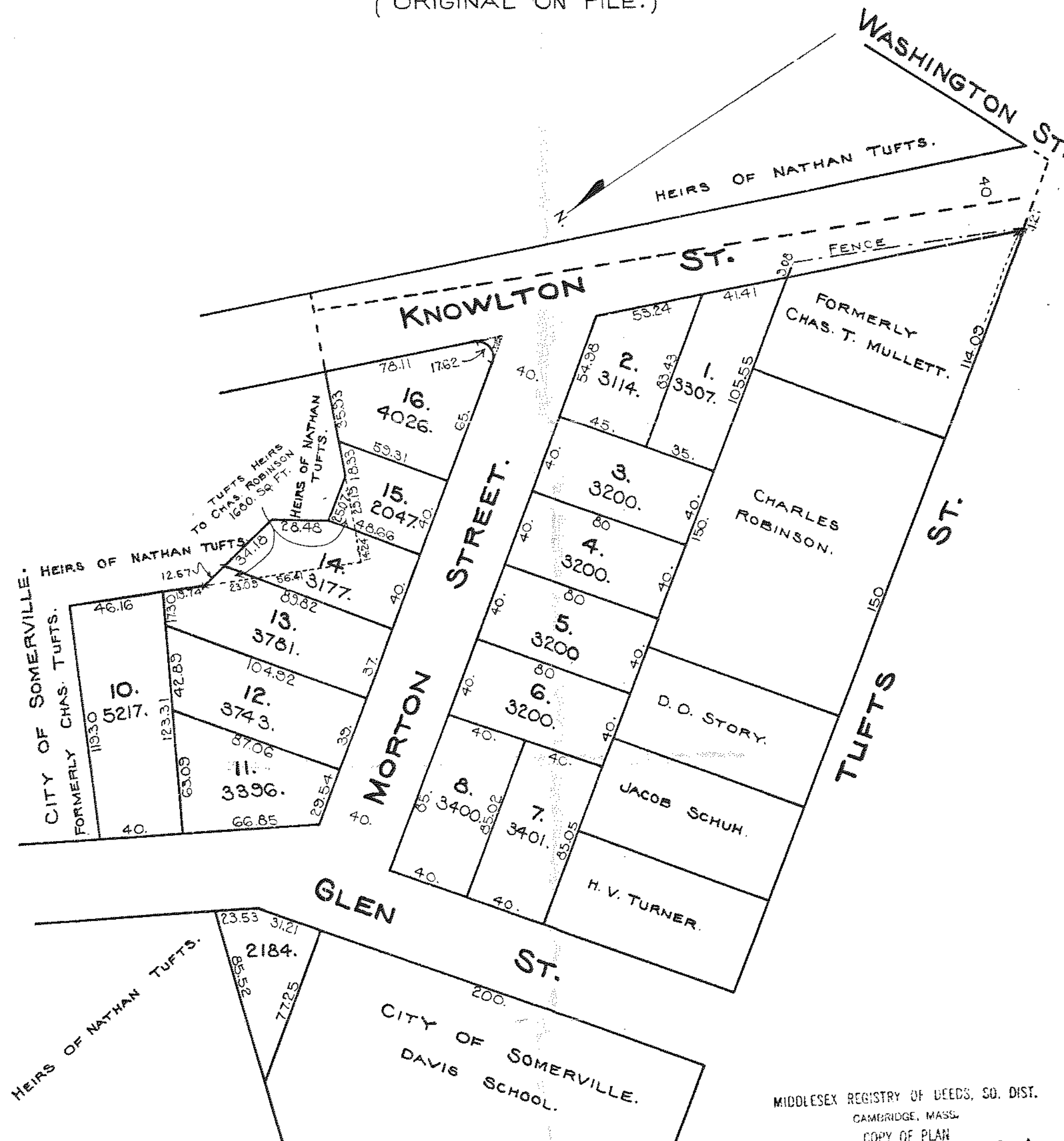
CHARLES ROBINSON

SCALE 40 FT. TO 1 IN. MAR. 15, 1890.

GEO. A. KIMBALL CIVIL ENGINEER.

194 WASHINGTON ST. BOSTON

(ORIGINAL ON FILE.)



MIDDLESEX REGISTRY OF DEEDS, SO. DIST.
CAMBRIDGE, MASS.
COPY OF PLAN
Recorded JUL 14, 1890 at 10:45 A.M.
In Plan Book 64 Plan 34

Attest

Register

Appendix D

Record Interest Holder Notification Letters

VIA CERTIFIED MAIL: 7004 0750 0002 1938 6950

Geotechnical
Environmental
Water Resources
Ecological

January 19, 2010

Project 04516-3

Victoria Howell
Uchenna C-Ngesina
11 Morton Street, Apt. 2
Somerville, MA 02145-4205

Dear Mrs. Howell & Mr. C-Ngesina:

**Re: Activity and Use Limitation Notification to Record Interest Holders
11 Morton Street
Somerville, Massachusetts
RTN 3-23246**

Consistent with the Massachusetts Contingency Plan (MCP; 310 CMR 40.1074(1)(e)), this letter is being provided to notify you of the planned recording of a Notice of Activity and Use Limitation (AUL) for the above referenced property. As a record interest holder in the property, you are being provided 30 days notice prior to the recording of the Notice of AUL.

The enclosed documents (Attachments A and B, listed below) summarize the basis for and scope of the activity and use limitations to be placed on the property.

Please contact me at 781-721-4012 or igladstone@geiconsultants.com if you have any questions.

Sincerely,

GEI CONSULTANTS, INC.



Ileen S. Gladstone, P.E., LSP, LEED AP
Vice President

MCE/ISG:csh

Enclosures: Attachment A – Notice of Activity and Use Limitation
Attachment B – Licensed Site Professional (LSP) Opinion

c: John R. Badey, UniFirst
Vithal V. Deshpande, City of Somerville
Irene M. Dale, Massachusetts Department of Environmental Protection



VIA CERTIFIED MAIL: 7004 0750 0002 1938 6967

Geotechnical
Environmental
Water Resources
Ecological

January 19, 2010
Project 04516-3

John R. Badey
Vice President
UniFirst Corporation
68 Jonspin Road
Wilmington, MA 01887-1090

Dear Mr. Badey:

**Re: Activity and Use Limitation Notification to Record Interest Holders
11 Morton Street
Somerville, Massachusetts
RTN 3-23246**

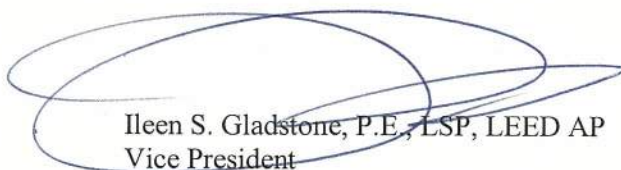
Consistent with the Massachusetts Contingency Plan (MCP; 310 CMR 40.1074(1)(e)), this letter is being provided to notify you of the planned recording of a Notice of Activity and Use Limitation (AUL) for the above referenced property. As a record interest holder in the property, you are being provided 30 days notice prior to the recording of the Notice of AUL.

The enclosed documents (Attachments A and B, listed below) summarize the basis for and scope of the activity and use limitations to be placed on the property.

Please contact me at 781-721-4012 or igladstone@geiconsultants.com if you have any questions.

Sincerely,

GEI CONSULTANTS, INC.



Ileen S. Gladstone, P.E., LSP, LEED AP
Vice President

MCE/ISG:csh

Enclosures: Attachment A – Notice of Activity and Use Limitation
Attachment B – Licensed Site Professional (LSP) Opinion

c: John R. Badey, UniFirst
Vithal V. Deshpande, City of Somerville
Irene M. Dale, Massachusetts Department of Environmental Protection



VIA CERTIFIED MAIL: 7004 0750 0002 1938 6974

Geotechnical
Environmental
Water Resources
Ecological

January 19, 2010
Project 04516-3

Mortgage Electronic Registration Systems, Inc.
P.O. Box 2026
Flint, MI 48501-2026

Dear Sir/Madam:

**Re: Activity and Use Limitation Notification to Record Interest Holders
11 Morton Street
Somerville, Massachusetts
RTN 3-23246**

Consistent with the Massachusetts Contingency Plan (MCP; 310 CMR 40.1074(1)(e)), this letter is being provided to notify you of the planned recording of a Notice of Activity and Use Limitation (AUL) for the above referenced property. As a record interest holder in the property, you are being provided 30 days notice prior to the recording of the Notice of AUL.

The enclosed documents (Attachments A and B, listed below) summarize the basis for and scope of the activity and use limitations to be placed on the property.

Please contact me at 781-721-4012 or igladstone@geiconsultants.com if you have any questions.

Sincerely,

GEI CONSULTANTS, INC.

A handwritten signature in blue ink, consisting of a large, stylized loop followed by a horizontal line extending to the right.

Ileen S. Gladstone, P.E., LSP, LEED AP
Vice President

MCE/ISG:csh

Enclosures: Attachment A – Notice of Activity and Use Limitation
Attachment B – Licensed Site Professional (LSP) Opinion

c: John R. Badey, UniFirst
Vithal V. Deshpande, City of Somerville
Irene M. Dale, Massachusetts Department of Environmental Protection



VIA CERTIFIED MAIL: 7004 0750 0002 1938 6981

Geotechnical
Environmental
Water Resources
Ecological

January 19, 2010
Project 04516-3

Said Hojr
11 Morton Street, Apt. 1
Somerville, MA 02145-4205

Dear Mr. Hojr:

**Re: Activity and Use Limitation Notification to Record Interest Holders
11 Morton Street
Somerville, Massachusetts
RTN 3-23246**

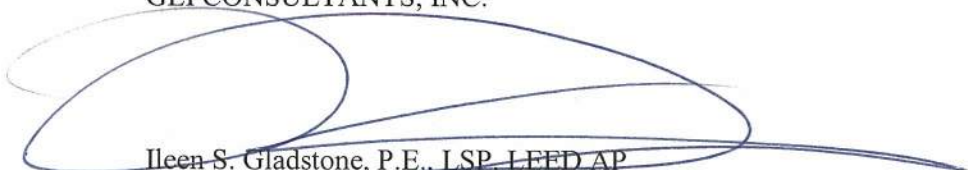
Consistent with the Massachusetts Contingency Plan (MCP; 310 CMR 40.1074(1)(e)), this letter is being provided to notify you of the planned recording of a Notice of Activity and Use Limitation (AUL) for the above referenced property. As a record interest holder in the property, you are being provided 30 days notice prior to the recording of the Notice of AUL.

The enclosed documents (Attachments A and B, listed below) summarize the basis for and scope of the activity and use limitations to be placed on the property.

Please contact me at 781-721-4012 or igladstone@geiconsultants.com if you have any questions.

Sincerely,

GEI CONSULTANTS, INC.



Ileen S. Gladstone, P.E., LSP, LEED AP
Vice President

MCE/ISG:csh

Enclosures: Attachment A – Notice of Activity and Use Limitation
Attachment B – Licensed Site Professional (LSP) Opinion

c: John R. Badey, UniFirst
Vithal V. Deshpande, City of Somerville
Irene M. Dale, Massachusetts Department of Environmental Protection

Appendix E

Public Notification Letters



Geotechnical
Environmental
Water Resources
Ecological

April 16, 2010
Project 04516-3

George Landers
Director of Inspectional Services SPCD, Planning & Zoning
City of Somerville
1 Franey Road
Somerville, MA 02145-2510

Dear Mr. Landers:

**Re: Recording of Notice of Activity and Use Limitation
50 Tufts Street
Somerville, Massachusetts
MassDEP RTN 3-23246**

GEI Consultants, Inc., on behalf of UniFirst Corporation, is hereby notifying your office that a Notice of Activity and Use Limitation (AUL) was recorded with the Middlesex South District Registry of Deeds on March 19, 2010 for a portion of the above-referenced site.

The AUL was recorded for the property located at 11 Morton Street, Somerville, Massachusetts, which is a portion of the 50 Tufts Street site. The AUL identifies certain activities and uses which are consistent with maintaining a condition of No Significant Risk at 11 Morton Street, and identifies those obligations and conditions necessary to maintain a condition of No Significant Risk at the property for the foreseeable future. A copy of the AUL is enclosed for your review. This notification is made in fulfillment of the public notice requirements of the Massachusetts Contingency Plan (310 CMR 40.1403(7)).

If you have any questions, please contact me at 781-721-4000 or igladstone@geiconsultants.com.

Sincerely,

GEI CONSULTANTS, INC.



Ileen S. Gladstone, P.E., LSP, LEEP AP
Vice President

JDR/ISG:csh
Enclosure

c: John R. Badey, UniFirst Corporation
Vithal V. Deshpande, City of Somerville
Irene M. Dale, Massachusetts Department of Environmental Protection
Victoria Howell and Uchenna Ngesina, Property Owners



Geotechnical
Environmental
Water Resources
Ecological

April 16, 2010
Project 04516-3

Herbert Foster
Chair, Zoning Board of Appeals SPCD, Planning & Zoning
City of Somerville
93 Highland Avenue
3rd Floor
Somerville, MA 02143-1740

Dear Mr. Foster:

**Re: Recording of Notice of Activity and Use Limitation
50 Tufts Street
Somerville, Massachusetts
MassDEP RTN 3-23246**

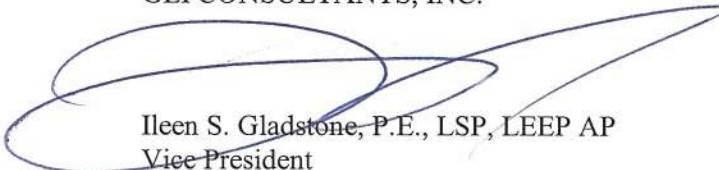
GEI Consultants, Inc., on behalf of UniFirst Corporation, is hereby notifying your office that a Notice of Activity and Use Limitation (AUL) was recorded with the Middlesex South District Registry of Deeds on 3/19/2010 for a portion of the above-referenced site.

The AUL was recorded for the property located at 11 Morton Street, Somerville, Massachusetts, which is a portion of the 50 Tufts Street site. The AUL identifies certain activities and uses which are consistent with maintaining a condition of No Significant Risk at 11 Morton Street, and identifies those obligations and conditions necessary to maintain a condition of No Significant Risk at the property for the foreseeable future. A copy of the AUL is enclosed for your review. This notification is made in fulfillment of the public notice requirements of the Massachusetts Contingency Plan (310 CMR 40.1403(7)).

If you have any questions, please contact me at 781-721-4000 or igladstone@geiconsultants.com.

Sincerely,

GEI CONSULTANTS, INC.



Ileen S. Gladstone, P.E., LSP, LEED AP
Vice President

JDR/ISG:csh
Enclosure

c: John R. Badey, UniFirst Corporation
Vithal V. Deshpande, City of Somerville
Irene M. Dale, Massachusetts Department of Environmental Protection
Victoria Howell and Uchenna Ngesina, Property Owners



Geotechnical
Environmental
Water Resources
Ecological

April 16, 2010
Project 04516-3

Joseph A. Curtatone
Mayor, City of Somerville
Somerville City Hall
93 Highland Avenue
Somerville, MA 02143-1740

Dear Mayor Curtatone:

**Re: Recording of Notice of Activity and Use Limitation
50 Tufts Street
Somerville, Massachusetts
MassDEP RTN 3-23246**

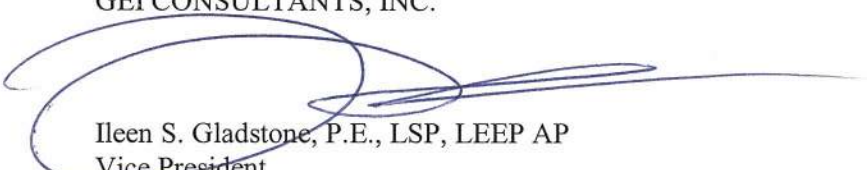
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If you have any questions, please contact me at 781-721-4000 or igladstone@geiconsultants.com.

Sincerely,

GEI CONSULTANTS, INC.



Ileen S. Gladstone, P.E., LSP, LEEP AP
Vice President

JDR/ISG:csh
Enclosure

c: John R. Badey, UniFirst Corporation
Vithal V. Deshpande, City of Somerville
Irene M. Dale, Massachusetts Department of Environmental Protection
Victoria Howell and Uchenna Ngesina, Property Owner



Geotechnical
Environmental
Water Resources
Ecological

April 16, 2010
Project 04516-3

Paulette Renault Caragianes
Director, Health Department City of Somerville
City Hall Annex
50 Evergreen Avenue
Somerville, MA 02145-2819

Dear Ms. Renault Caragianes:

**Re: Recording of Notice of Activity and Use Limitation
50 Tufts Street
Somerville, Massachusetts
MassDEP RTN 3-23246**

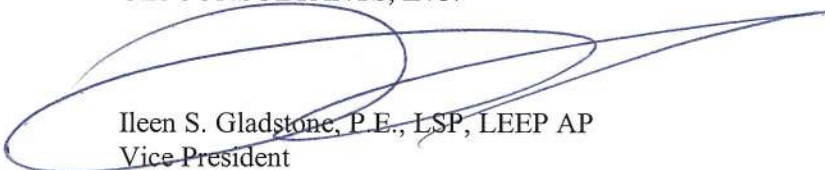
GEI Consultants, Inc., on behalf of UniFirst Corporation, is hereby notifying your office that a Notice of Activity and Use Limitation (AUL) was recorded with the Middlesex South District Registry of Deeds on 3/19/2010 for a portion of the above-referenced site.

The AUL was recorded for the property located at 11 Morton Street, Somerville, Massachusetts, which is a portion of the 50 Tufts Street site. The AUL identifies certain activities and uses which are consistent with maintaining a condition of No Significant Risk at 11 Morton Street, and identifies those obligations and conditions necessary to maintain a condition of No Significant Risk at the property for the foreseeable future. A copy of the AUL is enclosed for your review. This notification is made in fulfillment of the public notice requirements of the Massachusetts Contingency Plan (310 CMR 40.1403(7)).

If you have any questions, please contact me at 781-721-4000 or igladstone@geiconsultants.com.

Sincerely,

GEI CONSULTANTS, INC.



Ileen S. Gladstone, P.E., LSP, LEAP AP
Vice President

JDR/ISG:csh
Enclosure

c: John R. Badey, UniFirst Corporation
Vithal V. Deshpande, City of Somerville
Irene M. Dale, Massachusetts Department of Environmental Protection
Victoria Howell and Uchenna Ngesina, Property Owners



Consulting
Engineers and
Scientists

January 30, 2024
Project 04516-3

VIA CERTIFIED MAIL 9171 9690 0935 0204 6588 37

12 Morton Street Condominium Trust
c/o Mr. Gregory Puszko
12 Morton Street, Unit 1
Somerville, MA 02145

VIA CERTIFIED MAIL 9171 9690 0935 0204 6588 44

Chestnut Lane Realty LLC
Aliya Saeed, Manager
45 Tamarack Lane
Niskayuna, NY 12309

VIA CERTIFIED MAIL 9171 9690 0935 0204 6588 51

Mr. Joel Tenenbaum
12 Morton Street, Unit 3
Somerville, MA 02145

**Re: Summary of Indoor Air Sampling and Environmental Conditions
and Request for Access
12 Morton Street
Somerville, Massachusetts**

Dear Mr. Puszko, Ms. Saeed, and Mr. Tenenbaum:

The purpose of this letter is to provide a summary of the environmental conditions at the property located at 12 Morton Street in Somerville, Massachusetts due to contamination originating from the property at 50 Tufts Street, and to request access to the property for continued monitoring of the sub-slab ventilation system that has previously been installed.

A release of chlorinated volatile organic compounds (VOCs) to soil and groundwater on the 50 Tufts Street Property was first reported to the Massachusetts Department of Environmental Protection (MassDEP) in 2002. Numerous studies have been conducted relating to the 50 Tufts Street Site, and response actions are currently being conducted under the Massachusetts Contingency Plan (MCP) process. Reports documenting response actions conducted at the Site are available for review at the MassDEP Northeast Regional Office in Woburn, Massachusetts. Records are accessible online at the MassDEP Searchable Sites database (<https://eeaonline.eea.state.ma.us/portal#!/search/wastesite>). Additionally, local public document repositories have been established at the Somerville Central Public Library and at the City of Somerville Clerk's Office. The MassDEP release tracking number (RTN) for the Site is RTN 3-23246. The 12 Morton Street property is located within the boundaries of the Site (Fig. 1).

The boundaries of the Site were delineated based on the extent of dissolved concentrations of chlorinated VOCs in groundwater. All properties within the Site, including 35-37 Knowlton Street, are serviced by municipal water. Therefore, there is limited potential for direct exposure to

contamination in groundwater for human receptors within the Site. Because they are volatile, VOCs have the potential to migrate from subsurface soils or groundwater into the indoor air of buildings. This is known as vapor intrusion.

GEI collected a sub-slab soil vapor sample from beneath the building at 12 Morton Street in May 2007. Based on the soil vapor sampling results, the potential for a vapor intrusion exposure pathway was identified at 12 Morton Street, and an Exposure Pathway Mitigation Measure (EPMM) was recommended. Installation of an EPMM was completed in March 2008. The EPMM consists of a venting system beneath the basement floor, and an epoxy vapor barrier system on the basement walls. Soil vapor beneath the building is captured via multiple extraction pipes installed beneath the concrete floor in the basement. The soil vapor is re-routed from beneath the slab to the atmosphere via exterior piping that extends vertically above the roofline. The EPMM does not require off-gas treatment.

Following installation of the EPMM, a Grant of Remediation Easement and Restrictions (enclosed) was recorded on the property on December 7, 2007, and indoor air samples were collected in March 2008, April 2009, March 2010, and November 2010. We have attached a summary table of the indoor air sampling results. The indoor air sampling results confirmed that the EPMM was functioning properly and demonstrated that there is a condition of "No Significant Risk" to occupants of the building at 12 Morton Street. No Significant Risk is a standard established in the MCP to demonstrate that exposure to residual contamination will not result in unacceptable risks to human health based on regulatory thresholds.

Following installation of the EPMM, the owner of 12 Morton Street also executed a Notice of Activity and Use Limitation ("AUL") that was recorded in the Middlesex South Registry of Deeds on October 23, 2009. An AUL is a document that provides information to current and future property owners and other interested parties about (1) the nature and extent of contamination on the property, (2) the appropriateness of certain uses and activities on the property, and (3) a property owner's obligations to ensure that the requirements of the AUL continue to be met.

In order to maintain a condition of No Significant Risk, the AUL for 12 Morton Street requires that the EPMM be inspected at least annually to confirm that it is functioning properly. Specific requirements to preserve the EPMM are detailed in the AUL. A copy of the AUL is enclosed with this letter.

On April 4, 2019, GEI inspected the EPMM installed at the property. The system appeared to be in good condition and no repairs were necessary at that time.

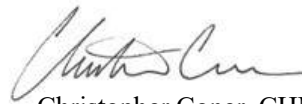
GEI on behalf of UniFirst Corporation would like to schedule a time to access the Property to maintain, inspect, and monitor operation of the system. The inspection should take approximately 15 minutes and can be performed on a day and time that is convenient for you. Please contact me at igladstone@geiconsultants.com or 781-721-4012 to answer any of your questions and to coordinate access.

Sincerely,

GEI CONSULTANTS, INC.



Heen S. Gladstone, P.E., LSP, LEED AP
Senior Vice President



Christopher Coner, CHMM
Project Manager

MEF/COC:jam

Enclosures

c: Catherine Malagrida, UniFirst Corporation
MassDEP via Status Report

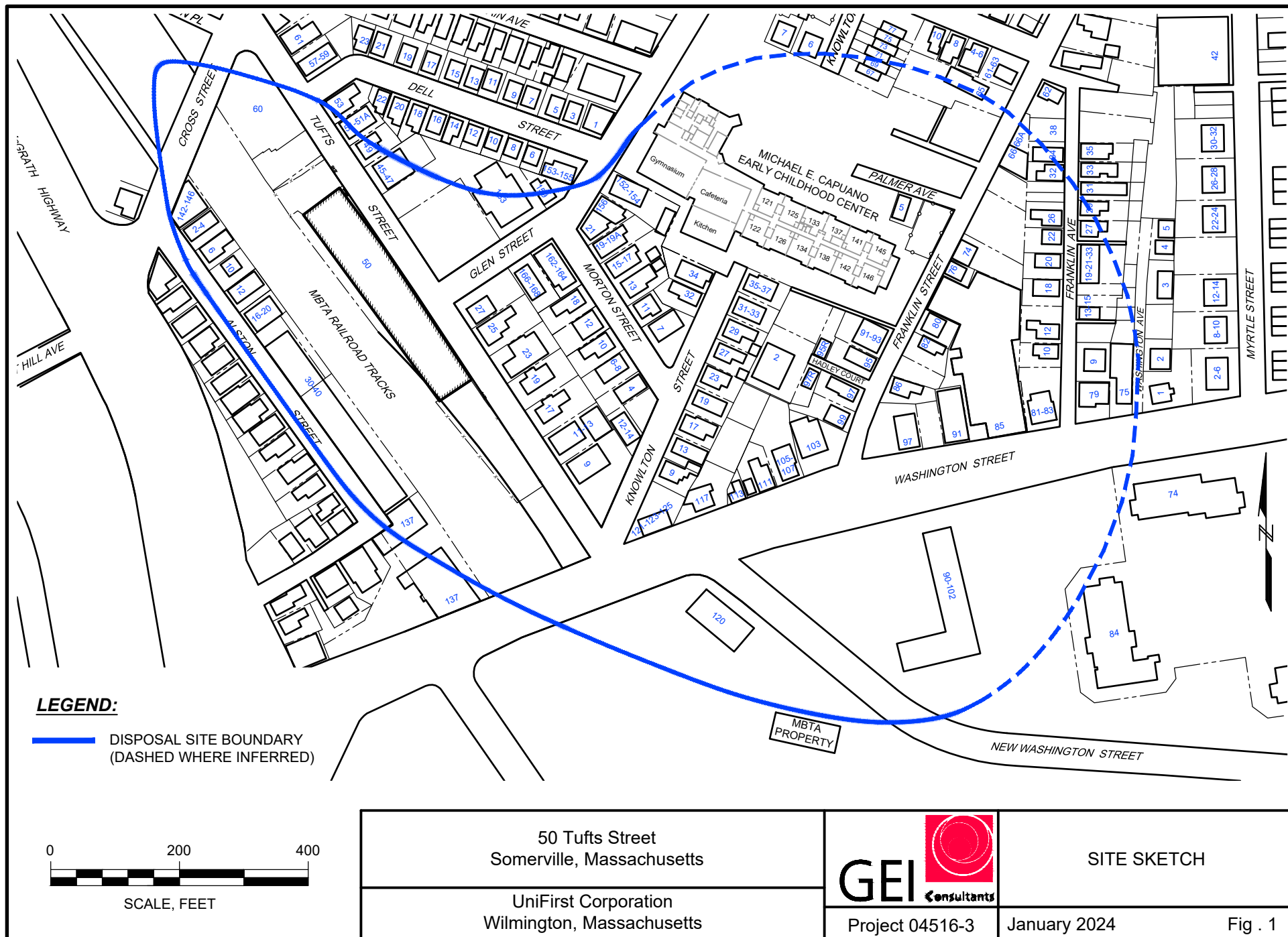


Table 1
Chemical Testing Results - Indoor Air
12 Morton Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Sampling Duration: Units:		12 Morton Street															
		12MORT-1A		12MORT-1B		12MORT-B1		12MORT-B2		12MORT-1A		12MORT-1B		12MORT-B1		12MORT-B2	
		3/5/08		3/5/08		3/5/08		3/5/08		3/21/08		3/21/08		3/21/08		3/21/08	
		4-Hour		4-Hour		4-Hour		4-Hour		4-Hour		4-Hour		4-Hour		4-Hour	
Analyte		Method		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs)		TO-15															
Carbon tetrachloride ⁵				0.62 J	0.099 J	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	0.62 J	0.099 J	0.75 J	0.12 J	< 1.3	< 0.20
Tetrachloroethylene (PCE)				< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20

- General Notes:**
- 1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
 - 2. µg/m³ = micrograms per cubic meter.
 - 3. ppbv = parts per billion by volume.
 - 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
 - 5. Analyte is not associated with the release of chlorinated VOCs at the Site, and is therefore not a compound of potential concern (COPC). Refer to Section 4.5 of this Response Action Outcome report.
 - 6. On 3/05/08 and 3/21/08 two duplicate samples were taken from the 1st Floor (1A and 1B) and two from the basement (B1 and B2).
 - 7. No pre-EPEM indoor air samples were collected. The EPEM was installed based on sub-slab soil vapor testing results.

Qualifying Note:

J The reported result is below the laboratory reporting limit and is estimated.

Table 1
Chemical Testing Results - Indoor Air
12 Morton Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Sampling Duration: Units:		12 Morton Street (continued)											
		12MORT-1		12MORT-B		12MORT-1		12MORT-B		12MORT-1		12MORT-B	
		4/3/09		4/3/09		3/9/10		3/9/10		11/19/10		11/19/10	
		4-Hour		4-Hour		24-Hour		24-Hour		24-Hour		24-Hour	
Analyte		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Volatile Organic Compounds (VOCs)													
Carbon tetrachloride ⁵		< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	NT	NT	NT	NT
Tetrachloroethylene (PCE)		< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	1.4	0.21	< 1.4	< 0.20	< 1.4	< 0.20

General Notes:

- 1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
- 2. µg/m³ = micrograms per cubic meter.
- 3. ppbv = parts per billion by volume.
- 4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
- 5. Analyte is not associated with the release of chlorinated VOCs at the Site, and is therefore not a compound of potential concern (COPC). Refer to Section 4.5 of this Response Action Outcome report.
- 6. On 3/05/08 and 3/21/08 two duplicate samples were taken from the 1st Floor (1A and 1B) and two from the basement (B1 and B2).
- 7. No pre-EPEM indoor air samples were collected. The EPEM was installed based on sub-slab soil vapor testing results.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

November 19, 2009
Project 04516-3



Geotechnical
Environmental
Water Resources
Ecological

Department of Environmental Protection
Northeast Regional Office
Bureau of Waste Site Cleanup
205B Lowell Street
Wilmington, MA 01887

RECEIVED

NOV 19 2009

DEP
NORTHEAST REGIONAL OFFICE

Dear Sir or Madam:

Re: Notice of Activity and Use Limitation (AUL)
50 Tufts Street
Somerville, Massachusetts
RTN 3-23246

On behalf of our client, UniFirst Corporation, GEI is submitting the enclosed Notice of Activity and Use Limitation (AUL) and supporting documentation for the property located at 12 Morton Street in Somerville, Massachusetts, which is a portion of the 50 Tufts Street disposal site.

The AUL was recorded with the Middlesex South District Registry of Deeds (the Registry) on October 23, 2009. The following information is included:

- Appendix A: AUL Transmittal Form (BWSC113)
- Appendix B: Certified Registry copy of the AUL
- Appendix C: Registry copy of the survey plan referenced in the AUL
- Appendix D: Registry copy of the Trustee's Certificate evidencing signatory authority of the person signing the AUL
- Appendix E: Copies of notification letters sent by certified mail to record interest holders
- Appendix F: Copies of notification letters to be sent to the Chief Municipal Officer, Board of Health, Zoning Board of Appeals, and Inspectional Services

A legal notice of the AUL will be published in the *Somerville Journal* before November 22, 2009, and a copy of the published notice will be submitted to your office within seven days of publication.

If you have any questions, please contact me at 781-721-4000 or igladstone@geiconsultants.com.

Sincerely,

GEI CONSULTANTS, INC.



Ileen S. Gladstone, P.E., LSP
Vice President

JDR/ISG:csh
Enclosures

c: John R. Badey, UniFirst
Vithal V. Deshpande, City of Somerville
Irene M. Dale, Massachusetts Department of Environmental Protection

Appendix A

AUL Transmittal Form
BWSC113



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC113

ACTIVITY & USE LIMITATION (AUL) TRANSMITTAL FORM

Pursuant to 310 CMR 40.1056 & 40.1070 - 40.1084 (Subpart J)

Release Tracking Number

3 - 23246

A. DISPOSAL SITE LOCATION:

1. Disposal Site Name: 50 TUFTS ST & PROP ACROSS THE ST

2. Street Address: 50 TUFTS ST

3. City/Town: SOMERVILLE

4. ZIP Code: 02145-4129

☒ 5. Check here if a Tier Classification Submittal has been provided to DEP for this disposal site.

☐ a. Tier 1A ☐ b. Tier 1B ☒ c. Tier 1C ☐ d. Tier 2

6. If a Tier I Permit has been issued, provide Permit Number: W085813

B. THIS FORM IS BEING USED TO: (check one)

☒ 1. Submit a certified copy of a **Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1074.

☐ 2. Submit an **Evaluation of Changes in Land Uses/Activities and/or Site Conditions after a Response Action Outcome Statement** has been filed pursuant to 310 CMR 40.1080.

☐ 3. Submit a certified copy of an **Amended Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1081

☐ 4. Submit a certified copy of a **Partial Termination of a Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1083(3).

☐ 5. Submit a certified copy of a **Termination of a Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1083(1)(d).

☐ 6. Submit a certified copy of a **Grant of Environmental Restriction**, pursuant to 310 CMR 40.1071.

☐ 7. Submit a certified copy of an **Amendment of a Grant of Environmental Restriction**, pursuant to 310 CMR 40.1081(3).

☐ 8. Submit a certified copy of a **Partial Release of a Grant of Environmental Restriction**, pursuant to 310 CMR 40.1083(2).

☐ 9. Submit a certified copy of a **Release of a Grant of Environmental Restriction**, pursuant to 310 CMR 40.1083(1)(c).

☐ 10. Submit a certified copy of a **Confirmatory Activity and Use Limitation**, pursuant to 310 CMR 40.1085(4).

11. Provide Additional RTNs:

☐ a. Check here if this AUL Submittal covers additional Release Tracking Numbers (RTNs).

b. Provide the additional Release Tracking Number(s) covered by this AUL Submittal.

☐ - ☐ -

(All sections of this transmittal form must be filled out unless otherwise noted above.
BWSC113A is required for all submittals listed above)



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC113

ACTIVITY & USE LIMITATION (AUL) TRANSMITTAL FORM

Release Tracking Number

Pursuant to 310 CMR 40.1056 & 40.1070 - 40.1084 (Subpart J)

3 - 23246

C. AUL INFORMATION:

1. Document (per Section B) Recording and/or Registration Information:

a. Name of Registry of Deeds and/or Land Registration Office: MIDDLESEX SOUTH DISTRICT REGISTRY OF DEEDS

b. Book and Page Number and/or Document Number: BOOK 53716 PAGE 298

c. Date of recording and/or registration: 10/23/2009

mm/dd/yyyy

2. Is the address of the property subject to AUL different from the disposal site address listed above?

☐ a. No ☒ b. Yes If yes, then fill out address section below.

3. Street Address: 12 MORTON STREET

4. City/Town: SOMERVILLE, MA

5. ZIP Code: 02145-4206

D. PERSON SUBMITTING AUL TRANSMITTAL FORM:

1. Check all that apply: ☐ a. change in contact name ☐ b. change of address ☐ c. change in the person undertaking response actions

2. Name of Organization: UNIFIRST CORPORATION

3. Contact First Name: JOHN R

4. Last Name: BADEY

5. Street: 68 JONSPIN RD

6. Title: VICE PRESIDENT

7. City/Town: WILMINGTON

8. State: MA

9. ZIP Code: 01887-1090

10. Telephone: (800) 347-7888

11. Ext.:

12. FAX: (978) 988-1305

13. Is the person described in this section the owner of the property?

☐ a. Yes ☒ b. No, if checked then Section G must be filled out by at least one owner.

☐ c. Check here if providing names and addresses of any additional owners in an attachment.

E. RELATIONSHIP TO DISPOSAL SITE OF PERSON SUBMITTING AUL TRANSMITTAL FORM: (check one)

☒ 1. RP or PRP ☐ a. Owner ☐ b. Operator ☐ c. Generator ☐ d. Transporter

☒ e. Other RP or PRP Specify: OTHER PRPS

☐ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

☐ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ 4. Any Other Person Submitting AUL Specify:



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC113

ACTIVITY & USE LIMITATION (AUL) TRANSMITTAL FORM

Release Tracking Number

Pursuant to 310 CMR 40.1056 & 40.1070 - 40.1084 (Subpart J)

3 - 23246

F. REQUIRED ATTACHMENT AND SUBMITTALS:

- ☒ 1. Check here to certify that notice of the proposed Activity and Use Limitation (AUL) was given to all record-interest holders, if any, in accordance with 310 CMR 40.1074(1)(e), via certified mail.
- ☐ a. Check here if there were no record interest holders. b. Date of certified mailing: 08/14/2009
mm/dd/yyyy
- ☒ c. Check here to certify that names and addresses of all record holders notified is attached.
- ☒ 2. Check here to certify that within 30 days of recording and/or registering the AUL, including amending, releasing or terminating the AUL, a copy of the AUL was/will be provided to the Chief Municipal Officer, the Board of Health, the Zoning Official, and the Building Code Enforcement Official in the community(ies) where the property subject to such Activity and Use Limitation is located.
- ☒ 3. Check here to certify that within 30 days of recording and/or registering the AUL, including amending, releasing or terminating the AUL, a Legal Notice was/will be published in a newspaper with circulation in the community(ies) where the property subject to the AUL is located.
- ☒ 4. Check here to certify that within 7 days of publishing a Legal Notice in a newspaper with circulation in the community(ies) where the property subject to the AUL is located, a copy of the notice was/will be submitted to DEP.
- ☒ 5. Check here to certify that within 30 days of recording and/or registering the AUL, including amending, releasing or terminating the AUL, a certified copy of the AUL, including the LSP Opinion containing the material facts, data, and other information, will be submitted to DEP.
- ☐ 6. Check here if any non-updatable information provided on this form is incorrect, e.g. Site Address/Location Aid. Send corrections to the DEP Regional Office.
- ☐ 7. If an **Evaluation of Changes in Land Uses/Activities and/or Site Conditions after a Response Action Outcome Statement** is being submitted, check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.

G. CERTIFICATION OF OWNER OF PROPERTY, IF NOT PERSON SUBMITTING AUL TRANSMITTAL FORM:

1. I, Lisa Roberts, attest under the pains and penalties of perjury that I am the owner of said property(ies), subject to the AUL

2. Lisa Roberts

Signature

3. Date: 9/23/09
mm/dd/yyyy

4. Name of Organization: LISA MARIE ROBERTS AS TRUSTEE OF THE 12 MORTON STREET NOMINEE TRUST

5. Contact First Name: LISA MARIE

6. Last Name: ROBERTS

7. Street: 18 TREMONT STREET

8. Title: TRUSTEE

9. City/Town: BOSTON

10. State: MA

11. ZIP Code: 02108-2301

12. Telephone: (781) 721-4029

13. Ext.:

14. FAX:



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC113

ACTIVITY & USE LIMITATION (AUL) TRANSMITTAL FORM

Release Tracking Number

Pursuant to 310 CMR 40.1056 & 40.1070 - 40.1084 (Subpart J)

3 - 23246

H. CERTIFICATION OF PERSON MAKING SUBMITTAL:

1. I, John R BADEY, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

Pursuant to 310 CMR 40.1074 (1)(f), I also hereby certify under penalties of perjury, that either I (if person submitting the AUL Transmittal Form is the property owner), or

LISA MARIE ROBERTS, TRUSTEE, 12 MORTON ST NOMINEE TRUST

2. Name of Property Owner

am/is identified on the Notice of AUL as the owner of the property subject to the AUL, owned such property on the date that the AUL was recorded and /or registered

3. By:

John R BADEY
Signature

4. Title:

VICE PRESIDENT

5. For:

UNIFIRST CORPORATION

(Name of person or entity recorded in Section D)

6. Date:

9/29/2009

mm/dd/yyyy



7. Check here if the address of the person providing certification is different from address recorded in Section D.

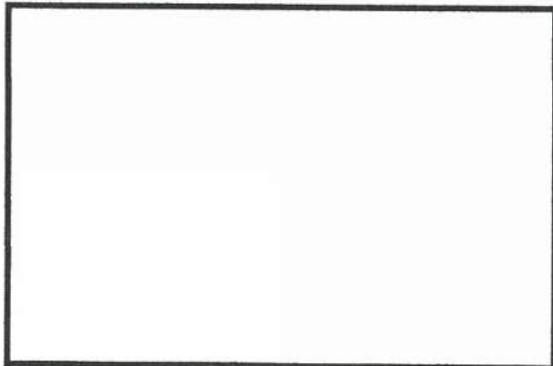
8. Street: _____

9. City/Town: _____ 10. State: _____ 11. ZIP Code: _____

12. Telephone: _____ 13. Ext.: _____ 14. FAX: _____

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO \$10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY:)



Supplement to BWSC113, Section F.1.c.

In accordance with the Massachusetts contingency Plan (MCP; 310 CMR 40.0000), and on behalf of UniFirst Corporation, we prepared letters dated August 13, 2009, to notify the following record of interest holders that an Activity and Use Limitation (AUL) was going to be placed on the property located at 95R Franklin Street in Somerville, Massachusetts (the Property).

Ms. Lisa Marie Roberts, Trustee
12 Morton Street Nominee Trust
c/o Marsh, Moriarty, Ontell, & Golder, PC
Attn: Michael Marsh
18 Tremont Street
Boston, MA 02108-2301

Mr. John R. Badey
Vice President
UniFirst Corporation
68 Jonspin Road
Wilmington, MA 01887-1090

Mr. Chad R. Scott
12 Morton Street, Unit 1
Somerville, MA 02145-4206

Ms. Sophia Thakali
12 Morton Street, Unit 3
Somerville, MA 02145-4206

Appendix B

Certified Copy of AUL



2009 00205401

Bk: 53716 Pg: 298 Doc: NOT
Page: 1 of 20 10/23/2009 11:21 AM

Form 1075

NOTICE OF ACTIVITY AND USE LIMITATION

M.G.L. c. 21E, § 6 and 310 CMR 40.0000

Disposal Site Name: 50 Tufts Street, Somerville, Massachusetts
DEP Release Tracking No.(s): 3-23246

This Notice of Activity and Use Limitation ("Notice") is made as of this 23rd day of October, 2009, by Lisa Marie Roberts as Trustee of the 12 Morton Street Nominee Trust c/o Marsh, Moriarty, Ontell & Golder, PC, 18 Tremont Street, Boston, Massachusetts, together with her successors and assigns (collectively "Owner").

WITNESSETH:

WHEREAS, Lisa Marie Roberts as Trustee of the 12 Morton Street Nominee Trust is the owner in fee simple of that certain parcel of land located at 12 Morton Street in Somerville, Middlesex County, Massachusetts with the buildings and improvements thereon, pursuant to a deed recorded with the Middlesex South District Registry of Deeds in Book 51487, Page 127;

WHEREAS, said parcel of land, which is more particularly bounded and described in Exhibit A, attached hereto and made a part hereof ("Property") is subject to this Notice of Activity and Use Limitation. The Property is shown on a plan recorded in the Middlesex South District Registry of Deeds in Plan Book 64, Plan 34;

WHEREAS, the Property comprises part of a disposal site as the result of a release of oil and/or hazardous material. Exhibit B is a sketch plan showing the relationship of the Property subject to this Notice of Activity and Use Limitation to the boundaries of said disposal site existing within the limits of the Property and to the extent such boundaries have been established. Exhibit B is attached hereto and made a part hereof; and

WHEREAS, one or more response actions have been selected for a Portion of the Disposal Site in accordance with M.G.L. c. 21E ("Chapter 21E") and the Massachusetts Contingency Plan, 310 CMR 40.0000 ("MCP"). Said response actions are based upon (a) the restriction of human access to and contact with oil and/or hazardous material in soil and/or (b) the restriction of certain activities occurring in, on, through, over, or under the Property. The basis for such restrictions is set forth in an Activity and Use Limitation Opinion ("AUL Opinion"), dated OCTOBER 5, 2009, (which is attached hereto as Exhibit C and made a part hereof);

NOW, THEREFORE, notice is hereby given that the activity and use limitations set forth in said AUL Opinion are as follows:

1. Activities and Uses Consistent with the AUL Opinion. The AUL Opinion provides that a condition of No Significant Risk to health, safety, public welfare, or the environment exists for any foreseeable period of time (pursuant to 310 CMR 40.0000) so long as any of the following activities and uses occur on the Property:

Goodwin Procter LLP
53 State Street
Boston, MA 02109

50 TUFTS STREET, SOMERVILLE
12 MORTON STREET, SOMERVILLE

DE-03

- (i) Any use of the existing building located on the Property, including use of the building as a residence, so long as the vapor barrier and venting system comprising the Exposure Pathway Elimination Measure ("EPEM") are maintained and, if an electric fan is added to the EPEM, such fan operates continuously;
- (ii) Activities and uses which are not identified by this Notice as being inconsistent with maintaining a condition of No Significant Risk;
- (iii) Such other activities or uses which, in the Opinion of an LSP, shall present no greater risk of harm to health, safety, public welfare, or the environment than the activities and uses set forth in this Paragraph; and
- (iv) Such other activities and uses not identified as being Activities and Uses Inconsistent with the AUL.

2. Activities and Uses Inconsistent with the AUL Opinion. Activities and uses which are inconsistent with the objectives of this Notice of Activity and Use Limitation, and which, if implemented at the Property, may result in a significant risk of harm to health, safety, public welfare, or the environment or in a substantial hazard, are as follows:

- (i) In the basement, removal or damage of the concrete floor, the overlying elastomeric coating, the vapor barrier, the sub-slab venting system, and/or the protective stucco wall finish;
- (ii) In the basement, any activities which may damage and/or compromise the concrete floor, the overlying elastomeric coating, the vapor barrier, the sub-slab venting system, and/or the protective stucco wall finish;
- (iii) In the event an electric fan is added to the EPEM, removal or damage of such fan;
- (iv) In the event an electric fan is added to the EPEM, shutting down, turning off, or removing electrical power to the fan, or any other activity that would make such fan inoperable;
- (v) Any activities which may damage and/or compromise the ventilation piping located on the exterior of the building; and
- (vi) Construction of any occupied structure at the Property without the installation of an EPEM and subsequent indoor air sampling to confirm its effectiveness in preventing or mitigating vapor intrusion into the structure.

3. Obligations and Conditions Set Forth in the AUL Opinion. Obligations and/or conditions to be undertaken and/or maintained at the Property to maintain a

condition of No Significant Risk as set forth in the AUL Opinion shall include the following:

- (i) In the basement, the integrity of the concrete floor, the overlying elastomeric floor coating, the vapor barrier, the sub-slab venting system, and the protective stucco wall finish of the existing building must be preserved and the elements of the EPEM must not be damaged or altered;
- (ii) On the exterior of the building, the integrity of the ventilation piping must be preserved, and the elements of the piping must not be damaged or altered;
- (iii) In the event an electric fan is added to the EPEM, power must be maintained to such fan and the fan may not be shut down;
- (iv) In the event an electric fan is added to the EPEM, notification must be provided to UniFirst Corporation, together with its successors and assigns and/or its agents, if such fan becomes inoperable, and access must be provided to UniFirst Corporation, together with its successors and assigns and/or its agents, to repair or replace the fan as necessary;
- (v) Access must be provided, at least annually, to UniFirst Corporation, together with its successors and assigns and/or its agents, to inspect the EPEM for damage and, to the extent necessary to continue the EPEM's effectiveness in preventing or mitigating vapor intrusion into the building, to conduct indoor air testing and/or repair or replace the vapor barrier, venting system, and/or electric fan (to the extent such a fan is added to the EPEM); and
- (vi) Any future construction of an occupied structure at the Property must include the installation of an EPEM to prevent or mitigate vapor intrusion into the structure. The design of the EPEM must be incorporated into the design and construction of the future structure and must be evaluated by an LSP. Follow-up indoor air testing must be conducted to confirm the effectiveness of the EPEM in preventing or mitigating vapor intrusion into the structure.

4. Proposed Changes in Activities and Uses. Any proposed changes in activities and uses at the Property which may result in higher levels of exposure to oil and/or hazardous material than currently exist shall be evaluated by an LSP who shall render an Opinion, in accordance with 310 CMR 40.1080 *et seq.*, as to whether the proposed changes will present a significant risk of harm to health, safety, public welfare, or the environment. Any and all requirements set forth in the Opinion to meet the objective of this Notice shall be satisfied before any such activity or use is commenced.

5. Violation of a Response Action Outcome. The activities, uses, and/or exposures upon which this Notice is based shall not change at any time to cause a significant risk of harm to health, safety, public welfare, or the environment or to create substantial hazards due to exposure to oil and/or hazardous material without the prior evaluation by an LSP in accordance with 310 CMR 40.1080 *et seq.*, and without additional response actions, if necessary, to achieve or maintain a condition of No Significant Risk or to eliminate substantial hazards.

If the activities, uses, and/or exposures upon which this Notice is based change without the prior evaluation and additional response actions determined to be necessary by an LSP in accordance with 310 CMR 40.1080 *et seq.*, the owner or operator of the Property subject to this Notice at the time that the activities, uses and/or exposures change, shall comply with the requirements set forth in 310 CMR 40.0020.

6. Incorporation Into Deeds, Mortgages, Leases, and Instruments of Transfer. This Notice shall be incorporated either in full or by reference into all future deeds, easements, mortgages, leases, licenses, occupancy agreements, or any other instrument of transfer, whereby an interest in and/or a right to use the Property or a portion thereof is conveyed.

Owner hereby authorizes and consents to the filing and recordation and/or registration of this Notice, said Notice to become effective when executed under seal by the undersigned LSP, and recorded and/or registered with the appropriate Registry(ies) of Deeds and/or Land Registration Office(s).

WITNESS the execution hereof under seal this 23 day of September, 2009.



Lisa Marie Roberts, Trustee
12 Morton Street Nominee Trust

COMMONWEALTH OF MASSACHUSETTS

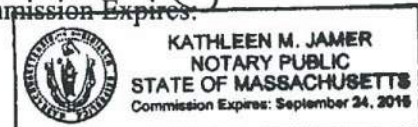
Middlesex, ss

_____, 2009

On this 23 day of September, 2009, before me, the undersigned notary public, personally appeared Lisa Roberts, proved to me through satisfactory evidence of identification, which were MA Driver License, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.

Kathleen M. Jamer
Notary Public

My Commission Expires:



The undersigned LSP hereby certifies that she executed the aforesaid Activity and Use Limitation Opinion attached hereto as Exhibit C and made a part hereof and that in her Opinion this Notice of Activity and Use Limitation is consistent with the terms set forth in said Activity and Use Limitation Opinion.

Date: 10/05/09

Ileen S. Gladstone
[LSP]
A circular notary seal stamp for Ileen S. Gladstone, Registered Professional, No 9719. The seal includes the text "COMMONWEALTH OF MASSACHUSETTS" and "REGISTERED PROFESSIONAL".

COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss

_____, 2009

On this 5 day of October, 2009, before me, the undersigned notary public, personally appeared ILEEN GLADSTONE, proved to me through satisfactory evidence of identification, which were MA DRIVER LICENSE, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.

William Jamer
Notary Public

My Commission Expires:

Form 1075

Notice Of Activity And Use Limitation

M.G.L. c. 21E, § 6 and 310 CMR 40.0000

Page 6 of 6

Upon recording, return to:

Lisa Marie Roberts, Trustee

12 Morton Street Nominee Trust

c/o Marsh, Moriarty, Ontell, & Golder, PC

Attn: Michael Marsh

18 Tremont Street

Boston, MA 02108-2301

Exhibit A

Metes and Bounds Description of AUL Area



Bk: 51487 Pg: 127 Doc: DEED
Page: 1 of 2 07/25/2008 01:43 PM

QUITCLAIM DEED

I, Stanley R. Hunter, for consideration paid and in full consideration of Four Hundred Eighty Thousand (\$480,000.00) Dollars grant to Lisa Marie Roberts, Trustee with QUITCLAIM COVENANTS *of the 12 Morton Street Nominee Trust*

a parcel of land with the buildings thereon situated on the southwesterly side of Morton Street, Somerville, Middlesex County, being Lot 5, as shown on a plan of land belonging to Charles Robinson, made by George A. Kimball, March 15, 1890 and recorded with Middlesex South District Deeds, Plan Book 64, Plan 34 and bounded:

NORTHEASTERLY by Morton Street, forty (40) feet;
SOUTHEASTERLY by Lot 4 on said plan, eighty (80) feet;
SOUTHWESTERLY by land of owners unknown, forty (40) feet;
NORTHWESTERLY by Lot 6 on said plan, eighty (80) feet.

For my title see Deed recorded with the Middlesex South Registry of Deeds in Book 39310, Page 393.

MASSACHUSETTS EXCISE TAX
Southern Middlesex District ROD # 001
Date: 07/25/2008 01:43 PM
Ctrl# 112473 01317 Doc# 00123127
Fee: \$2,188.80 Cons: \$480,000.00

Return to:
Marsh, Moriarty, Ontell & Golden
18 Tremont Street Suite 900
Boston, MA 02108

#6424 P.001

Antony Troiano

UL.25.2008 10:51 617 2413888



LDC + gtee - 12 Morton Street, Somerville, Massachusetts

Exhibit B

Sketch Plan of Disposal Site Boundary (Exhibit B-1)
Sketch Plan of AUL Area (Exhibit B-2)



LEGEND:

DISPOSAL SITE BOUNDARY
(DASHED WHERE INFERRED)

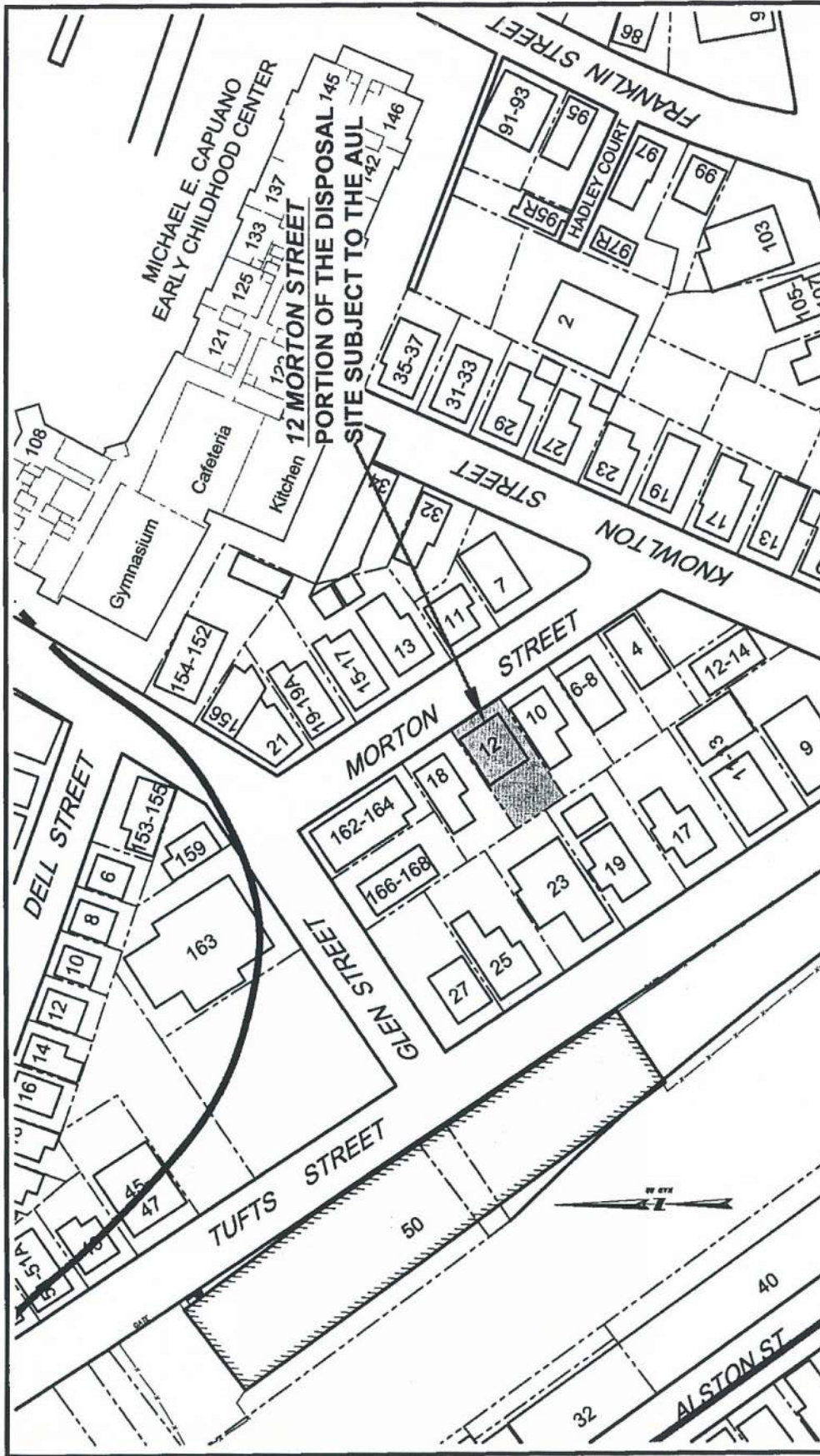


Activity and Use Limitation
50 Tufts Street
Somerville, Massachusetts
UniFirst Corporation
Wilmington, Massachusetts



SITE SKETCH

Project 04516-3
September 2009
Exhibit B-1



LEGEND:

DISPOSAL SITE BOUNDARY
(DASHED WHERE INFERRED)



SITE SKETCH

Activity and Use Limitation
50 Tufts Street

Somerville, Massachusetts

UniFirst Corporation

Wilmington, Massachusetts

Project 04516-3

September 2009 Exhibit B-2

N:\04516\Drafting\04516-3\AUL.s045163 - 12 MORTON

Exhibit C
LSP AUL Opinion



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC113A

ACTIVITY & USE LIMITATION (AUL) OPINION FORM

Pursuant to 310 CMR 40.1056 & 40.1070 - 40.1084 (Subpart J)

Release Tracking Number

3 - 23246

A. DISPOSAL SITE LOCATION:

1. Disposal Site Name: 50 TUFTS ST & PROP ACROSS THE ST

2. Street Address: 50 TUFTS ST

3. City/Town: SOMERVILLE

4. ZIP Code: 02145-4129

B. THIS FORM IS BEING USED TO: (check one)

- ☒ 1. Provide the LSP Opinion for a **Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1074.
- ☐ 2. Provide the LSP Opinion for an **Evaluation of Changes in Land Uses/Activities and/or Site Conditions after a Response Action Outcome Statement**, pursuant to 310 CMR 40.1080. Include BWSC113A as an attachment to BWSC113. Section A and C do not need to be completed.
- ☐ 3. Provide the LSP Opinion for an **Amended Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1081(4).
- ☐ 4. Provide the LSP Opinion for a **Partial Termination of a Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1083(3).
- ☐ 5. Provide the LSP Opinion for a **Termination of a Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1083(1)(d).
- ☐ 6. Provide the LSP Opinion for a **Grant of Environmental Restriction**, pursuant to 310 CMR 40.1071.
- ☐ 7. Provide the LSP Opinion for an **Amendment of a Grant of Environmental Restriction**, pursuant to 310 CMR 40.1081(3).
- ☐ 8. Provide the LSP Opinion for a **Partial Release of a Grant of Environmental Restriction**, pursuant to 310 CMR 40.1083(2).
- ☐ 9. Provide the LSP Opinion for a **Release of a Grant of Environmental Restriction**, pursuant to 310 CMR 40.1083(1)(c).
- ☐ 10. Provide the LSP Opinion for a **Confirmatory Activity and Use Limitation**, pursuant to 310 CMR 40.1085(4).

(Unless otherwise noted above, all sections of this form (BWSC113A) must be completely filled out, printed, stamped, signed with black ink and attached as an exhibit to the AUL Document to be recorded and/or registered with the Registry of Deeds and/or Land Registration Office.)

C. AUL INFORMATION:

1. Is the address of the property subject to AUL different from the disposal site address listed above?

☐ a. No ☒ b. Yes If yes, then fill out address section below.

2. Street Address: 12 MORTON STREET

3. City/Town: SOMERVILLE, MA

4. ZIP Code: 02145-4206



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC113A

ACTIVITY & USE LIMITATION (AUL) OPINION FORM

Pursuant to 310 CMR 40.1056 & 40.1070 - 40.1084 (Subpart J)

Release Tracking Number

3 - 23246

D. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> if Section B indicates that a **Notice of Activity and Use Limitation** is being registered and/or recorded, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1074;

> if Section B indicates that an **Evaluation of Changes in Land Uses/Activities and/or Site Conditions after a Response Action Outcome Statement** is being submitted, this evaluation was developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1080;

> if Section B indicates that an **Amended Notice of Activity and Use Limitation or Amendment to a Grant of Environmental Restriction** is being registered and/or recorded, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 40.1081;

> if Section B indicates that a **Termination or a Partial Termination of a Notice of Activity and Use Limitation, or a Release or Partial Release of a Grant of Environmental Restriction** is being registered and/or recorded, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1083;

> if Section B indicates that a **Grant of Environmental Restriction** is being registered and/or recorded, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1071;

> if Section B indicates that a **Confirmatory Activity and Use Limitation** is being registered and/or recorded, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1085(4);

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #: 9719

2. First Name: ILEEN S

3. Last Name: GLADSTONE

4. Telephone: (781) 721-4012

5. Ext.:

6. FAX:

7. Signature:

8. Date: 10/5/09
mm/dd/yyyy

9. LSP Stamp:



EXHIBIT C

OCTOBER 5, 2009

Reference: Activity and Use Limitation Opinion
12 Morton Street
Somerville, Massachusetts
DEP RTN 3-23246

Introduction

This Licensed Site Professional (LSP) Opinion for a Notice of Activity and Use Limitation (AUL) was prepared by GEI Consultants, Inc. (GEI) for the property located at 12 Morton Street in Somerville, Massachusetts (the Property). The Property comprises a portion of the 50 Tufts Street disposal site (the Site) assigned Release Tracking Number (RTN) 3-23246 by the Massachusetts Department of Environmental Protection (DEP). In 2002, a historical release of chlorinated volatile organic compounds (VOCs) to soil and groundwater at the Site was reported to the DEP. Subsequent investigations at the Site identified chlorinated VOCs in indoor air at the Site, and in groundwater and indoor air at residential properties in the vicinity of the 50 Tufts Street property, including 12 Morton Street. The Property and the 50 Tufts Street property are shown on Fig. 1. UniFirst Corporation of Wilmington, Massachusetts is conducting response actions at the Site.

This LSP Opinion was prepared in accordance with the Massachusetts Contingency Plan (MCP; 310 CMR 40.1074) and the DEP Guidance on Implementing AULs (May 1999). This AUL Opinion applies to the entire Property, as defined in Exhibit A and indicated on Exhibit B of the AUL.

This LSP Opinion provides the following information:

- Why an AUL is appropriate to achieve and/or maintain a condition of No Significant Risk;
- Activities and uses to be prohibited and/or limited;
- Activities and uses to be permitted; and
- Obligations and conditions necessary to meet the objectives of the AUL.

Background

The Property is located in a commercial/residential zoning district, and fronts Morton Street to the northeast, and is bounded by residential property to the north, south, and west. The Property is located within the Site boundary associated with a historic release of chlorinated VOCs to soil and groundwater at 50 Tufts Street, located southwest of the Property across Tufts Street. From approximately 1955 to approximately 2002, 50 Tufts Street was used for storage and distribution of industrial chemicals, laundry supplies, and dry cleaning supplies. Chemicals stored at and delivered to and from 50 Tufts Street included chlorinated solvents. These chlorinated VOCs – particularly tetrachloroethylene (PCE), trichloroethylene (TCE), and 1,1,1-trichloroethane (TCA) – have been detected in soil, soil vapor, indoor air, and groundwater at 50 Tufts Street.

Based on the results of assessments conducted to date, the Site includes the 50 Tufts Street property, together with portions of properties in the neighborhood to the east and west. Based on multiple rounds of groundwater measurements, the general direction of groundwater flow at the Site is to the northeast across Tufts Street towards Knowlton and Franklin Streets.

Based on groundwater, soil, soil vapor, and indoor air sampling results, GEI identified a several-block area near 50 Tufts Street for evaluation of vapor intrusion as a potential exposure pathway. The evaluation included a program of sub-slab soil vapor testing and indoor air testing. Indoor air testing at the Property indicated the presence of chlorinated VOCs, particularly PCE, and the likelihood of a complete vapor intrusion exposure pathway. The residence at the Property includes a basement.

To eliminate or mitigate the exposure pathway, UniFirst Corporation installed an Exposure Pathway Elimination Measure (EPEM) at the Property. In the basement, the EPEM consists of a new concrete floor and a vapor barrier system both beneath the floor and on the fieldstone foundation walls, together with a venting system beneath the vapor barrier. Sketches of the EPEM installed in the basement are shown in Fig. 2.

The EPEM includes a floor ventilation system consisting of a vapor transmission layer (porous geotextile) capped by a 40-millimeter-thick, high-density polyethylene vapor barrier and a new, approximately 4-inch-thick concrete slab. Five vapor sumps are installed in the floor with polyvinyl chloride (PVC) ventilation piping that extends up to the floor joists, exits the building above the sill, and extends above the roofline. Soil vapor is captured by the vapor transmission layer and ventilated to the outdoor ambient air, bypassing the pathway through the slab into indoor air. The ventilation system is designed so that an electric powered fan may be added to facilitate the flow of soil vapor through the ventilation system. A fan will be added to the ventilation system if and when an LSP determines that such facilitation of flow is necessary or appropriate. The EPEM also includes a wall vapor barrier system comprised of a vapor transmission plane, flexible membrane, and an approximately 1-inch-thick layer of cementitious stucco that extends up to the elevation of the outdoor ground surface. The modified basement walls and floor are coated with a two-part elastomeric vapor barrier.

Indoor air testing conducted after the installation of the EPEM did not detect VOCs above laboratory method reporting limits. Installation of the EPEM achieved a condition of No Significant Risk at 12 Morton Street.

Why an AUL is appropriate to achieve and/or maintain a condition of No Significant Risk at the Site:

The EPEM eliminated or mitigated the exposure pathway for vapor intrusion of chlorinated VOCs into the indoor air at 12 Morton Street and achieved a condition of No Significant Risk. In order to maintain a condition of No Significant Risk, the integrity of the EPEM must be preserved. Therefore, this AUL is necessary to define the restricted and permitted activities to maintain a condition of No Significant Risk. The AUL is applicable to the entire Property.

AUL Restrictions

The purpose of the AUL is to preserve the integrity of the EPEM because it eliminates or mitigates the exposure pathway and achieves and/or maintains a condition of No Significant Risk.

The following are the activities and uses that will be permitted and prohibited at the Property subject to this AUL.

1. Activities and Uses Consistent with the AUL Opinion. The AUL Opinion provides that a condition of No Significant Risk to health, safety, public welfare, or the environment exists for any foreseeable period of time (pursuant to 310 CMR 40.0000) so long as any of the following activities and uses occur on the Property:

- (i) Any use of the existing building located on the Property, including use of the building as a residence, so long as the vapor barrier and venting system comprising the EPEM are maintained and, if an electric fan is added to the EPEM, such fan operates continuously;
- (ii) Activities and uses which are not identified by this Notice as being inconsistent with maintaining a condition of No Significant Risk;
- (iii) Such other activities or uses which, in the Opinion of an LSP, shall present no greater risk of harm to health, safety, public welfare, or the environment than the activities and uses set forth in this Paragraph; and
- (iv) Such other activities and uses not identified as being Activities and Uses Inconsistent with the AUL.

2. Activities and Uses Inconsistent with the AUL Opinion. Activities and uses which are inconsistent with the objectives of this Notice of Activity and Use Limitation, and which, if implemented at the Property, may result in a significant risk of harm to health, safety, public welfare, or the environment or in a substantial hazard, are as follows:

- (i) In the basement, removal or damage of the concrete floor, the overlying elastomeric coating, the vapor barrier, the sub-slab venting system, and/or the protective stucco wall finish;
- (ii) In the basement, any activities which may damage and/or compromise the concrete floor, the overlying elastomeric coating, the vapor barrier, the sub-slab venting system, and/or the protective stucco wall finish;
- (iii) In the event an electric fan is added to the EPEM, removal or damage of such fan;
- (iv) In the event an electric fan is added to the EPEM, shutting down, turning off, or removing electrical power to the fan, or any other activity that would make such fan inoperable;
- (v) Any activities which may damage and/or compromise the ventilation piping located on the exterior of the building; and
- (vi) Construction of any occupied structure at the Property without the installation of an EPEM and subsequent indoor air sampling to confirm its effectiveness in preventing or mitigating vapor intrusion into the structure.

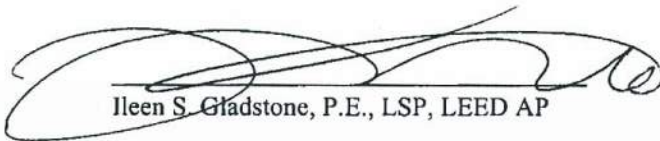
3. Obligations and Conditions Set Forth in the AUL Opinion. Obligations and/or conditions to be undertaken and/or maintained at the Property to maintain a condition of No Significant Risk as set forth in the AUL Opinion shall include the following:

- (i) In the basement, the integrity of the concrete floor, the overlying elastomeric floor coating, the vapor barrier, the sub-slab venting system, and the protective stucco wall finish of the existing building must be preserved and the elements of the EPEM must not be damaged or altered;
- (ii) On the exterior of the building, the integrity of the ventilation piping must be preserved, and the elements of the piping must not be damaged or altered;
- (iii) In the event an electric fan is added to the EPEM, power must be maintained to such fan and the fan may not be shut down;

- (iv) In the event an electric fan is added to the EPDM, notification must be provided to UniFirst Corporation, together with its successors and assigns and/or its agents, if such fan becomes inoperable, and access must be provided to UniFirst Corporation, together with its successors and assigns and/or its agents, to repair or replace the fan as necessary;
- (v) Access must be provided, at least annually, to UniFirst Corporation, together with its successors and assigns and/or its agents, to inspect the EPDM for damage and, to the extent necessary to continue the EPDM's effectiveness in preventing or mitigating vapor intrusion into the building, to conduct indoor air testing and/or repair or replace the vapor barrier, venting system, and/or electric fan (to the extent such a fan is added to the EPDM); and
- (vi) Any future construction of an occupied structure at the Property must include the installation of an EPDM to prevent or mitigate vapor intrusion into the structure. The design of the EPDM must be incorporated into the design and construction of the future structure and must be evaluated by an LSP. Follow-up indoor air testing must be conducted to confirm the effectiveness of the EPDM in preventing or mitigating vapor intrusion into the structure.

Summary and Conclusions

This LSP Opinion has been prepared to support the implementation of a Notice of AUL for a release of oil or hazardous materials at the Property. Based on the results of the Risk Characterization and with the implementation of an AUL on the Property, it is GEI's opinion that a condition of No Significant Risk will be maintained at the Property.


Ileen S. Gladstone, P.E., LSP, LEED AP

LSP S



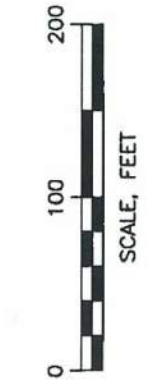
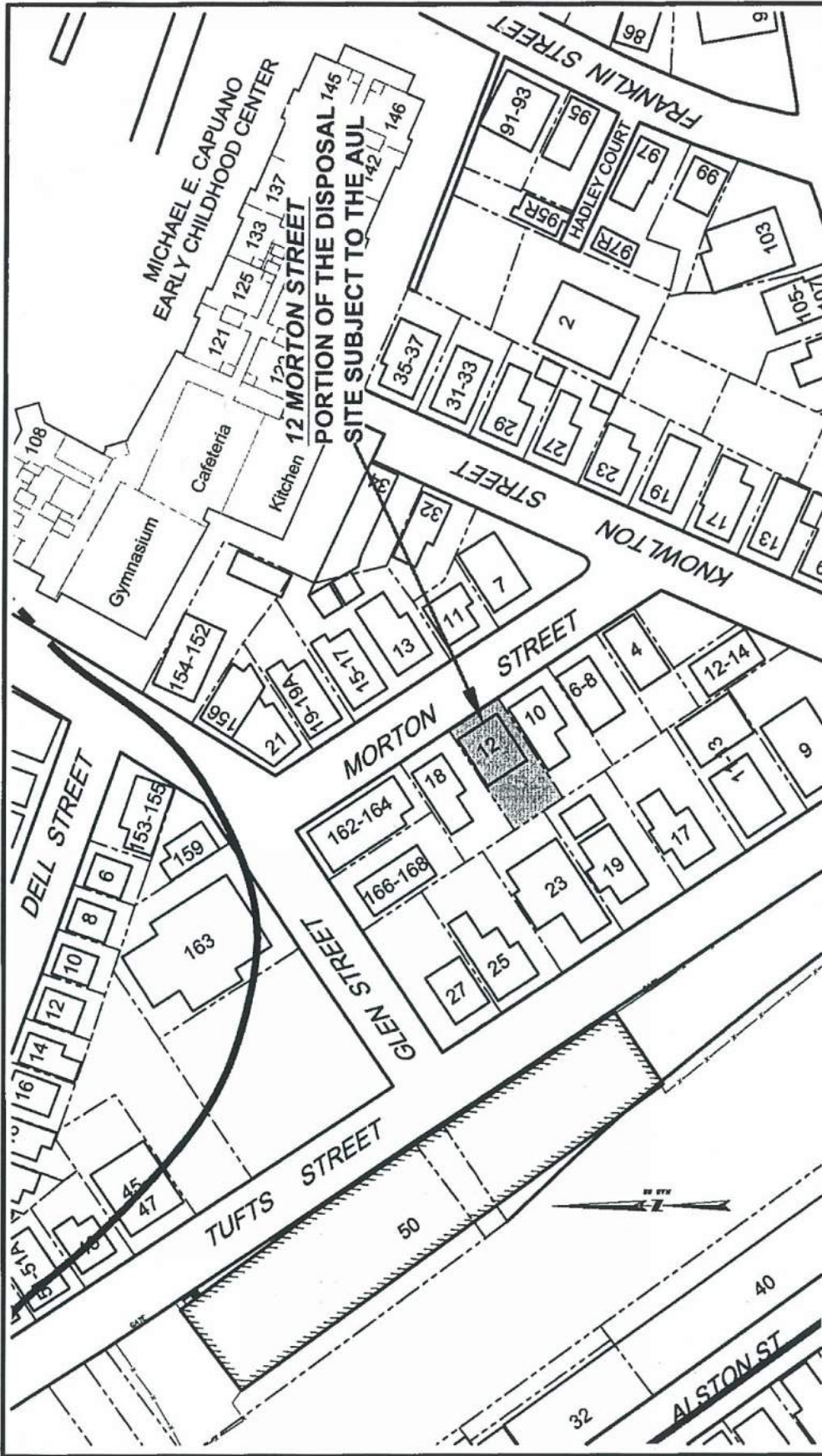
Date: 10/5/09

This AUL Opinion is based on the information presented in:

DEP (2007). The Massachusetts Contingency Plan (MCP) 310 CMR 40.0000, effective December 14.

GEI (2008). "Phase II Comprehensive Site Assessment, Method 3 Risk Characterization, and Phase III Remedial Action Plan, 50 Tufts Street, Somerville, Massachusetts," prepared for UniFirst Corporation, July 14.

GEI (2009). "Immediate Response Action Status Report No. 7 and Remedial Monitoring Report No. 10, 50 Tufts Street, Somerville, Massachusetts," prepared for UniFirst Corporation, May 11.



Activity and Use Limitation
50 Tufts Street
Somerville, Massachusetts
UniFirst Corporation
Wilmington, Massachusetts



PORTION OF THE
DISPOSAL SITE SUBJECT
TO THE AUL

Project 04516-3 September 2009 Fig. 1

COMMONWEALTH OF MASSACHUSETTS

MIDDLESEX S.S.

SOUTH DIST. RECD

CAMBRIDGE, MA

OCT 27 2009

I HEREBY CERTIFY THE FOREGOING

IS A TRUE COPY OF A PAPER

RECORDED IN BOOK B3176

PAGE 298

Eugene C. Burns

REGISTER

Appendix C

Survey Plan

PLAN OF BUILDING LOTS

IN

SOMERVILLE, MASS.

OWNED BY

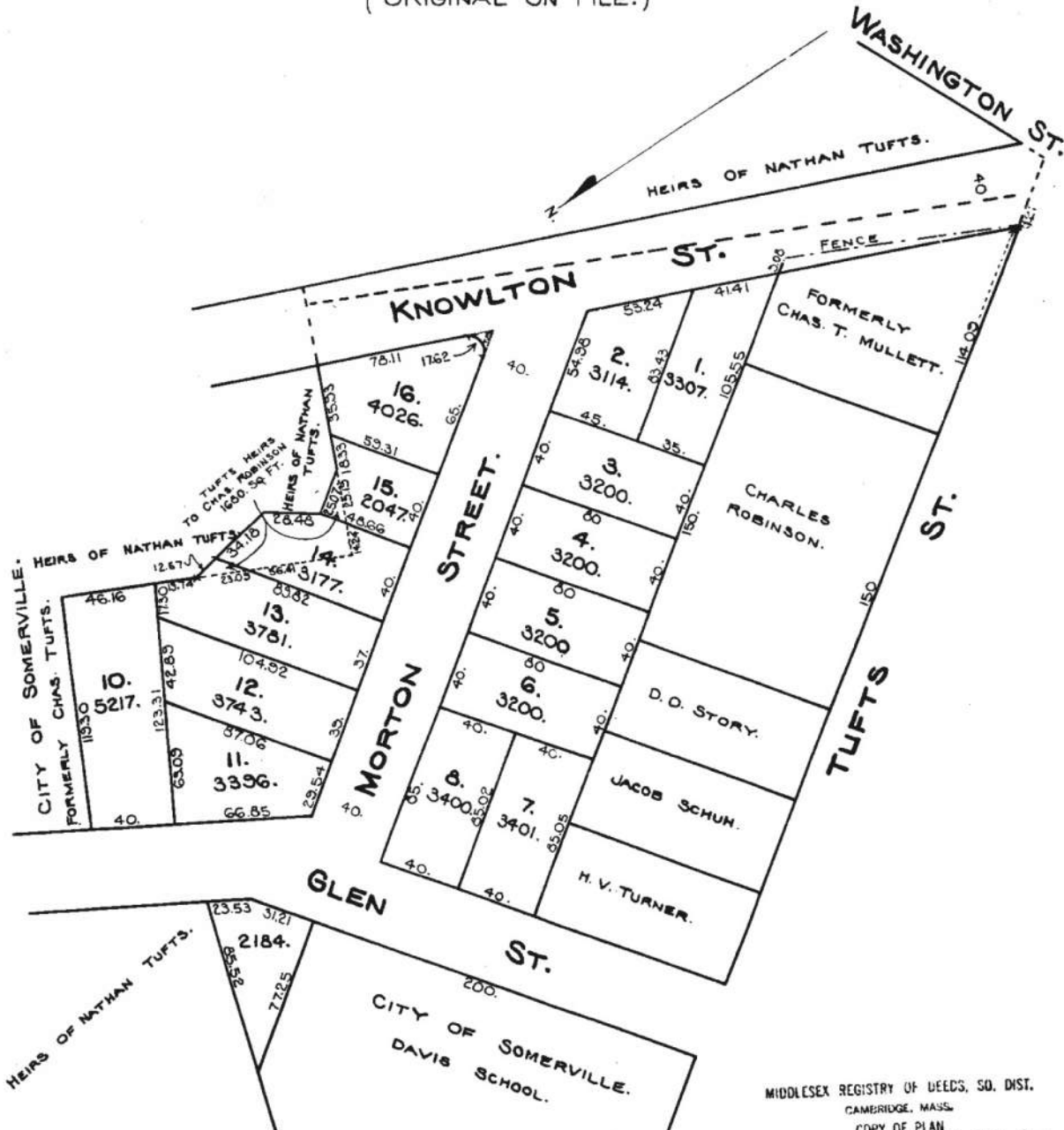
CHARLES ROBINSON

SCALE 40 FT. TO 1 IN. MAR. 15, 1890.

GEO. A. KIMBALL CIVIL ENGINEER.

194 WASHINGTON ST. BOSTON

(ORIGINAL ON FILE.)



MIDDLESEX REGISTRY OF DEEDS, SO. DIST.
CAMBRIDGE, MASS.

COPY OF PLAN
Recorded JUL 14, 1890 at 10:45 A.M.
in Plan Book 64 - Plan 34

Attest

Register

Appendix D

Trustee's Certificate

TRUSTEE'S CERTIFICATE
12 MORTON STREET NOMINEE TRUST

I, Lisa Marie Roberts, sole Trustee of the 12 Morton Street Nominee Trust (the "Trust") under Declaration of Trust dated July 16, 2008, recorded with the Middlesex South District Registry of Deeds (the "Registry") in Book 51487, page 121, hereby certify that:

1. I am the sole Trustee of the Trust.
2. The Trust is in full force and effect and is unmodified and unamended.
3. I, as sole Trustee, have been duly authorized by the holder of 100% of the beneficial interest in the Trust and have all the requisite approvals, power and authority to execute and deliver any and all documents (including but not limited to a Notice of Activity and Use Limitation) which the Trustee may, in her discretion, deem necessary to subject certain real property owned by the Trust and located at 12 Morton Street, Somerville, Massachusetts (the "Property") to activity and use limitations.

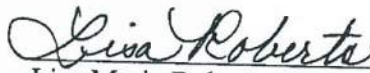
EXECUTED as a sealed instrument this 23 day of September, 2009.



2009 00205400

Bk: 53716 Pg: 296 Doc: CERT
Page: 1 of 2 10/23/2009 11:21 AM

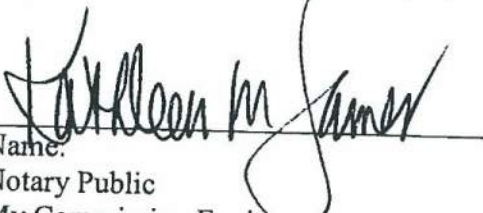
12 MORTON STREET NOMINEE TRUST

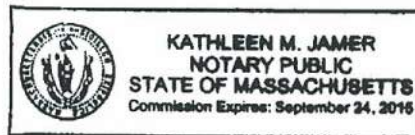

Lisa Marie Roberts, Trustee

COMMONWEALTH OF MASSACHUSETTS

County of Worcester, ss.

On this 23 day of September, 2009, before me, the undersigned notary public, personally appeared Lisa Marie Roberts, proved to me through satisfactory identification, which were MA Driver License, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that she signed it voluntarily for its stated purpose as Trustee of the 12 Morton Street Nominee Trust.


Name:
Notary Public
My Commission Expires:



Appendix E

Record Interest Holder Notification Letters



VIA CERTIFIED MAIL: 7004 0750 0002 1938 9074

Geotechnical
Environmental
Water Resources
Ecological

August 13, 2009
Project 04516-3

Ms. Lisa Marie Roberts, Trustee
12 Morton Street Nominee Trust
c/o Marsh, Moriarty, Ontell, & Golder, PC
Attn: Michael Marsh
18 Tremont Street
Boston, MA 02108-2301

Dear Ms. Roberts:

**Re: Activity and Use Limitation Notification to Record Interest Holders
12 Morton Street
Somerville, Massachusetts
RTN 3-23246**

Consistent with the Massachusetts Contingency Plan (MCP; 310 CMR 40.1074(1)(e)), this letter is being provided to notify you of the planned recording of a Notice of Activity and Use Limitation (AUL) for the above referenced property. As a record interest holder in the property, you are being provided 30 days notice prior to the recording of the Notice of AUL.

The enclosed documents (Attachments A and B, listed below) summarize the basis for and scope of the activity and use limitations to be placed on the property.

Please contact me at 781-721-4012 or igladstone@geiconsultants.com if you have any questions.

Sincerely,

GEI CONSULTANTS, INC.

A large, stylized handwritten signature in black ink, appearing to read "Ileen S. Gladstone".

Ileen S. Gladstone, P.E., LSP, LEED AP
Vice President

MCE/ISG:csh

Enclosures: Attachment A – Notice of Activity and Use Limitation
Attachment B – Licensed Site Professional (LSP) Opinion

c: John R. Badey, UniFirst
Vithal V. Deshpande, City of Somerville
Irene M. Dale, Massachusetts Department of Environmental Protection



VIA CERTIFIED MAIL: 7004 0750 0002 1938 9043

Geotechnical
Environmental
Water Resources
Ecological

August 13, 2009
Project 04516-3

Mr. John R. Badey
Vice President
UniFirst Corporation
68 Jonspin Road
Wilmington, MA 01887-1090

Dear Mr. Badey:

**Re: Activity and Use Limitation Notification to Record Interest Holders
12 Morton Street
Somerville, Massachusetts
RTN 3-23246**

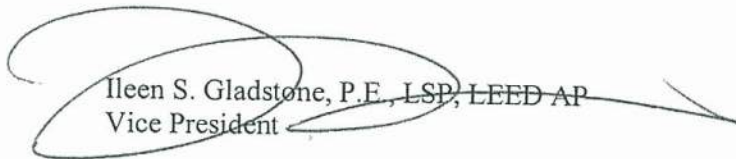
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The enclosed documents (Attachments A and B, listed below) summarize the basis for and scope of the activity and use limitations to be placed on the property.

Please contact me at 781-721-4012 or igladstone@geiconsultants.com if you have any questions.

Sincerely,

GEI CONSULTANTS, INC.


Ileen S. Gladstone, P.E., LSP, LEED AP
Vice President

MCE/ISG:csH

Enclosures: Attachment A – Notice of Activity and Use Limitation
Attachment B – Licensed Site Professional (LSP) Opinion

c: Greg Bibler, Esq. Goodwin Procter, LLC
Vithal V. Deshpande, City of Somerville
Irene M. Dale, Massachusetts Department of Environmental Protection



VIA CERTIFIED MAIL: 7004 0750 0002 1938 9050

Geotechnical
Environmental
Water Resources
Ecological

August 13, 2009
Project 04516-3

Mr. Chad Scott
12 Morton Street
Unit 1
Somerville, MA 02145-4206

Dear Mr. Scott:

**Re: Activity and Use Limitation Notification to Record Interest Holders
12 Morton Street
Somerville, Massachusetts
RTN 3-23246**

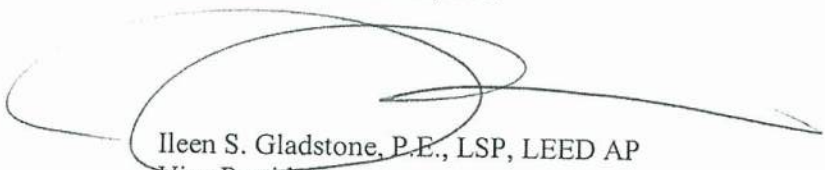
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The enclosed documents (Attachments A and B, listed below) summarize the basis for and scope of the activity and use limitations to be placed on the property.

Please contact me at 781-721-4012 or igladstone@geiconsultants.com if you have any questions.

Sincerely,

GEI CONSULTANTS, INC.



Ileen S. Gladstone, P.E., LSP, LEED AP
Vice President

MCE/ISG:csh

Enclosures: Attachment A – Notice of Activity and Use Limitation
Attachment B – Licensed Site Professional (LSP) Opinion

c: John R. Badey, UniFirst
Vithal V. Deshpande, City of Somerville
Irene M. Dale, Massachusetts Department of Environmental Protection



VIA CERTIFIED MAIL: 7004 0750 0002 1938 9067

Geotechnical
Environmental
Water Resources
Ecological

August 13, 2009
Project 04516-3

Ms. Sophia Thakali
12 Morton Street
Unit 3
Somerville, MA 02145-4206

Dear Ms. Thakali:

**Re: Activity and Use Limitation Notification to Record Interest Holders
12 Morton Street
Somerville, Massachusetts
RTN 3-23246**

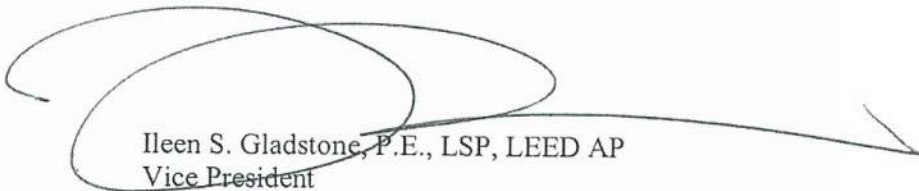
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The enclosed documents (Attachments A and B, listed below) summarize the basis for and scope of the activity and use limitations to be placed on the property.

Please contact me at 781-721-4012 or igladstone@geiconsultants.com if you have any questions.

Sincerely,

GEI CONSULTANTS, INC.



Ileen S. Gladstone, P.E., LSP, LEED AP
Vice President

MCE/ISG:csh

Enclosures: Attachment A – Notice of Activity and Use Limitation
Attachment B – Licensed Site Professional (LSP) Opinion

c: John R. Badey, UniFirst
Vithal V. Deshpande, City of Somerville
Irene M. Dale, Massachusetts Department of Environmental Protection

Appendix F

Public Notification Letters

Geotechnical
Environmental
Water Resources
Ecological

November 19, 2009
Project 04516-3

Mr. Joseph A. Curtatone
Mayor, City of Somerville
Somerville City Hall
93 Highland Avenue
Somerville, MA 02143-1740

Dear Mayor Curtatone:

**Re: Recording of Notice of Activity and Use Limitation
50 Tufts Street
Somerville, Massachusetts
DEP RTN 3-23246**

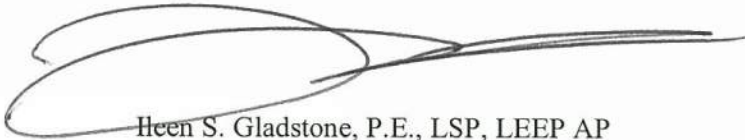
GEI Consultants, Inc., on behalf of the UniFirst Corporation, is hereby notifying your office that a Notice of Activity and Use Limitation (AUL) was recorded with the Middlesex South District Registry of Deeds on October 23, 2009 for a portion of the above-referenced site.

The AUL was recorded for the property located at 12 Morton Street, Somerville, Massachusetts, which is a portion of the 50 Tufts Street site. The AUL identifies certain activities and uses which are consistent with maintaining a condition of No Significant Risk at 12 Morton Street, and identifies those obligations and conditions necessary to maintain a condition of No Significant Risk at the property for the foreseeable future. A copy of the AUL is attached for your review. This notification is made in fulfillment of the public notice requirements of the Massachusetts Contingency Plan (310 CMR 40.1403(7)).

If you have any questions, please contact me at 781-721-4000 or igladstone@geiconsultants.com.

Sincerely,

GEI CONSULTANTS, INC.



Heen S. Gladstone, P.E., LSP, LEEP AP
Vice President

JDR/ISG:csh

c: John R. Badey, UniFirst Corporation
Vithal V. Deshpande, City of Somerville
Irene M. Dale, Massachusetts Department of Environmental Protection

Geotechnical
Environmental
Water Resources
Ecological

November 19, 2009
Project 04516-3

Ms. Paulette Renault Caragianes
Director, Health Department
City of Somerville
City Hall Annex
50 Evergreen Avenue
Somerville, MA 02145-2819

Dear Ms. Caragianes:

**Re: Recording of Notice of Activity and Use Limitation
50 Tufts Street
Somerville, Massachusetts
DEP RTN 3-23246**

GEI Consultants, Inc., on behalf of the UniFirst Corporation, is hereby notifying your office that a Notice of Activity and Use Limitation (AUL) was recorded with the Middlesex South District Registry of Deeds on October 23, 2009 for a portion of the above-referenced site.

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If you have any questions, please contact me at 781-721-4000 or igladstone@geiconsultants.com.

Sincerely,

GEI CONSULTANTS, INC.



Ileen S. Gladstone, P.E., LSP, LEEP AP
Vice President

JDR/ISG:csh

c: John R. Badey, UniFirst Corporation
Vithal V. Deshpande, City of Somerville
Irene M. Dale, Massachusetts Department of Environmental Protection

Geotechnical
Environmental
Water Resources
Ecological

November 19, 2009
Project 04516-3

Mr. Herbert Foster
Chair, Zoning Board of Appeals
SPCD, Planning & Zoning
City of Somerville
93 Highland Avenue, 3rd Floor
Somerville, MA 02143-1740

Dear Mr. Foster:

**Re: Recording of Notice of Activity and Use Limitation
50 Tufts Street
Somerville, Massachusetts
DEP RTN 3-23246**

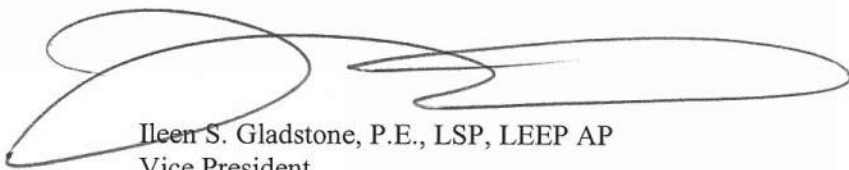
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The AUL was recorded for the property located at 12 Morton Street, Somerville, Massachusetts, which is a portion of the 50 Tufts Street site. The AUL identifies certain activities and uses which are consistent with maintaining a condition of No Significant Risk at 12 Morton Street, and identifies those obligations and conditions necessary to maintain a condition of No Significant Risk at the property for the foreseeable future. A copy of the AUL is attached for your review. This notification is made in fulfillment of the public notice requirements of the Massachusetts Contingency Plan (310 CMR 40.1403(7)).

If you have any questions, please contact me at 781-721-4000 or igladstone@geiconsultants.com.

Sincerely,

GEI CONSULTANTS, INC.



Ileen S. Gladstone, P.E., LSP, LEEP AP
Vice President

JDR/ISG:csh

c: John R. Badey, UniFirst Corporation
Vithal V. Deshpande, City of Somerville
Irene M. Dale, Massachusetts Department of Environmental Protection

Geotechnical
Environmental
Water Resources
Ecological

November 19, 2009
Project 04516-3

Mr. George Landers
Director of Inspectional Services
SPCD, Planning & Zoning
City of Somerville
1 Franey Road
Somerville, MA 02145-2510

Dear Mr. Landers:

**Re: Recording of Notice of Activity and Use Limitation
50 Tufts Street
Somerville, Massachusetts
DEP RTN 3-23246**

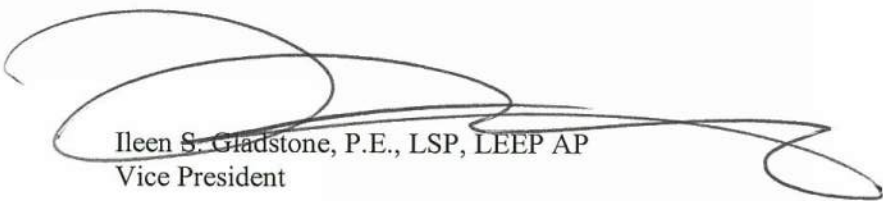
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The AUL was recorded for the property located at 12 Morton Street, Somerville, Massachusetts, which is a portion of the 50 Tufts Street site. The AUL identifies certain activities and uses which are consistent with maintaining a condition of No Significant Risk at 12 Morton Street, and identifies those obligations and conditions necessary to maintain a condition of No Significant Risk at the property for the foreseeable future. A copy of the AUL is attached for your review. This notification is made in fulfillment of the public notice requirements of the Massachusetts Contingency Plan (310 CMR 40.1403(7)).

If you have any questions, please contact me at 781-721-4000 or igladstone@geiconsultants.com.

Sincerely,

GEI CONSULTANTS, INC.



Ileen S. Gladstone, P.E., LSP, LEEP AP
Vice President

JDR/ISG:csh

c: John R. Badey, UniFirst Corporation
Vithal V. Deshpande, City of Somerville
Irene M. Dale, Massachusetts Department of Environmental Protection



Consulting
Engineers and
Scientists

January 30, 2024
Project 04516-3

VIA CERTIFIED MAIL: 9171 9690 0935 0204 6588 20

Jonathan and Anna Feingold
95 Franklin Street
Somerville, MA 02145

Dear Mr. and Ms. Feingold:

**Re: Summary of Indoor Air Sampling and Environmental Conditions
95 Franklin Street
Somerville, Massachusetts**

The purpose of this letter is to summarize the environmental conditions at 95 Franklin Street in Somerville, Massachusetts associated with the release of chlorinated volatile organic compounds (VOCs) to soil and groundwater on the 50 Tufts Street Property.

A release of chlorinated VOCs on the 50 Tufts Street Property was first reported to the Massachusetts Department of Environmental Protection (MassDEP) in 2002. Numerous studies have been conducted relating to the 50 Tufts Street Site, and response actions are currently being conducted under the Massachusetts Contingency Plan (MCP) process. Reports documenting response actions conducted at the Site are available for review at the MassDEP Northeast Regional Office in Woburn, Massachusetts. Records are accessible online at the MassDEP Searchable Sites database (<https://eeaonline.eea.state.ma.us/portal#!/search/wastesite>). Additionally, local public document repositories have been established at the Somerville Central Public Library and at the City of Somerville Clerk's Office. The MassDEP release tracking number (RTN) for the Site is RTN 3-23246. The 95 Franklin Street property is located within the boundaries of the Site (Fig. 1).

The boundaries of the Site were delineated based on the extent of dissolved concentrations of chlorinated VOCs in groundwater. All properties within the Site, including 95 Franklin Street, are serviced by municipal water. Therefore, there is limited potential for direct exposure to contamination in groundwater for human receptors within the Site. Because they are volatile, VOCs have the potential to migrate from subsurface soils or groundwater into the indoor air of buildings. This is known as vapor intrusion.

GEI collected sub-slab soil vapor samples at 95 Franklin Street in April 2007. Based on the sub-slab soil vapor sample testing results, an Active Exposure Pathway Mitigation Measure (AEPMM) was installed. The AEPMM, similar to a radon system, is sub-slab ventilation piping, and an electric-powered fan that captures soil vapor from below the foundation slab and vents the vapors outside above the roofline. GEI inspects and maintains this system and confirms that it continues to operate as designed. GEI will continue to maintain, inspect, and monitor operation of the system as long as it operates.

GEI performed indoor air testing after installation of the AEPMM in June 2007, June 2011, December 2011, February 2012, and May 2013. The results of the sampling are in the attached Table 1. During the May 2013 sampling tetrachloroethylene (PCE) was detected at a concentration of 3.5 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) in the sample collected from the basement, PCE was not detected in the sample collected from the first floor. The laboratory testing did not detect any other VOCs at concentrations above the laboratory reporting limits.

The indoor air sampling results demonstrate that there is a condition of "No Significant Risk" to occupants of the building at 95 Franklin Street. No Significant Risk is a standard established by MassDEP in the Massachusetts Contingency Plan (MCP) to demonstrate that exposure to residual contamination will not result in unacceptable risks to human health. At present, the condition of No Significant Risk is dependent on the continued operation of the AEPMM installed at the property.

Additionally, in September 2009, GEI collected one soil sample from the basement utility area where there was no concrete floor for laboratory testing of chlorinated VOCs. The laboratory testing did not detect PCE or any other chlorinated VOCs at concentrations above the laboratory reporting limits.

On September 2, 2009, a Grant of Remediation Easement and Restrictions was recorded at the Middlesex Registry of Deeds. A copy of this document is enclosed with this letter. The property is subject to certain conditions and restrictions that affect the use of the property, including the basement, namely using the basement as living space.

GEI will continue to maintain, inspect, and monitor operation of the system as long as it operates. As part of routine maintenance, GEI replaces the battery in the radio node affixed to the exterior of the house and monitors the fan. GEI on behalf of UniFirst Corporation would like to schedule a time to access the Property to maintain, inspect, and monitor operation of the system. The inspection should take approximately 15 minutes and can be performed on a day and time that is convenient for you. Please contact me at igladstone@geiconsultants.com or 781-721-4012 to answer any of your questions and to coordinate access.

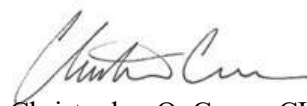
Please contact Ileen Gladstone at igladstone@geiconsultants.com or 781-721-4012 if you have any questions.

Sincerely,

GEI CONSULTANTS, INC.



Ileen S. Gladstone, P.E., LSP, LEED AP
Senior Vice President



Christopher O. Coner, CHMM
Project Manager

MEF/COC/ISG:jam
Enclosures

c: Catherine Malagrida, UniFirst Corporation
MassDEP via Status Report

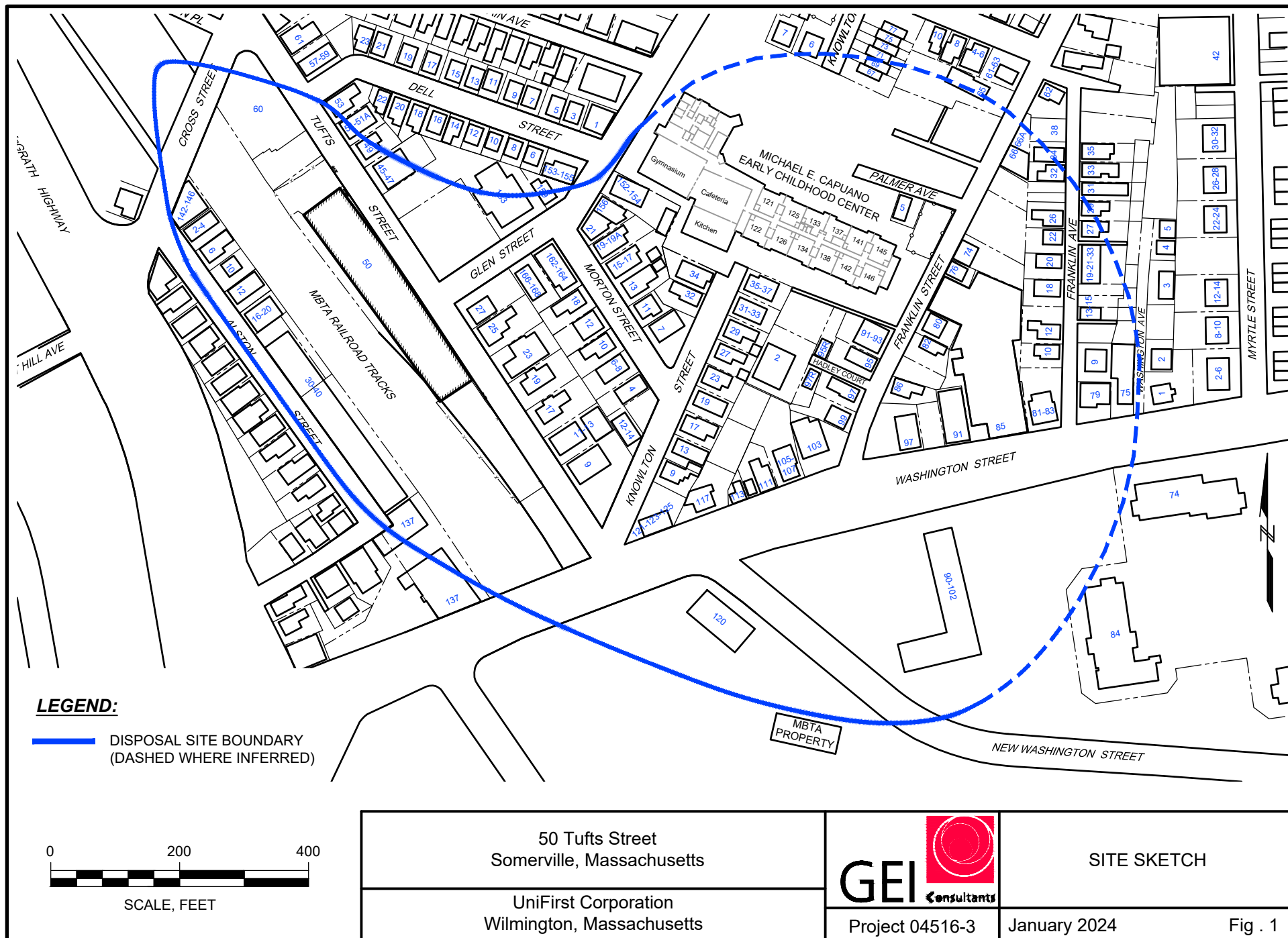


Table 1 - Chemical Testing Results - Post-EPMM Installation Indoor Air
95 Franklin Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units:		95 Franklin Street with Active EPMM (SSDS)				95 Franklin Street with Passive EPMM							
		95FRAN-1 6/7/07		95FRAN-B1 6/7/07		95 FRAN-1 1/6/11		95 FRAN-B 1/6/11		95FRAN-1 3/11/11		95FRAN-B 3/11/11	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method												
Volatile Organic Compounds (VOCs)	TO-15												
Carbon tetrachloride		0.63 J	0.10 J	0.69 J	0.11 J	NT	NT	NT	NT	NT	NT	NT	NT
Tetrachloroethylene (PCE)		8.8	1.30	8.1	1.2	14	2.1	29	4.3	22	3.2	43	6.4
Trichloroethylene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	0.91 J	0.17 J	0.86 J	0.11 J	1.6	0.30

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. NT = Not Tested.
5. EPMM = Exposure Pathway Mitigation Measure.
6. SSDS = Sub-Slab Depressurization System
7. The samples collected after June 2007 were collected over a 24-hour period ending on the date shown.
8. **No pre-EPMM indoor air samples were collected. The EPMM was installed based on sub-slab soil vapor testing results.**
9. A fan was installed on the EPMM on March 25, 2011.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 1 - Chemical Testing Results - Post-EPMM Installation Indoor Air
95 Franklin Street
Somerville, Massachusetts

Sample Location:		95 Franklin Street with Active EPMM (SSDS)															
Sample Name:		95FRAN-1		95FRAN-B1		95FRAN-1		95FRAN-B		95FRAN-1		95FRAN-B		95FRAN-1		95FRAN-B	
Sample Date:		6/24/11		6/24/11		12/13/11		12/13/11		2/3/12		2/3/12		5/17/13		5/17/13	
Units:		$\mu\text{g}/\text{m}^3$		ppbv		$\mu\text{g}/\text{m}^3$		ppbv		$\mu\text{g}/\text{m}^3$		ppbv		$\mu\text{g}/\text{m}^3$		ppbv	
Analyte	Method																
Volatile Organic Compounds (VOCs)	TO-15																
Carbon tetrachloride		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Tetrachloroethylene (PCE)		1.5	0.2	2.7	0.4	< 1.4	< 0.20	< 1.4	< 0.20	2.2	0.3	< 1.4	< 0.20	< 1.4	< 0.20	3.5	0.52
Trichloroethylene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. NT = Not Tested.
5. EPMM = Exposure Pathway Mitigation Measure.
6. SSDS = Sub-Slab Depressurization System
7. The samples collected after June 2007 were collected over a 24-hour period ending on the date shown.
8. **No pre-EPMM indoor air samples were collected. The EPMM was installed based on sub-slab soil vapor testing results.**
9. A fan was installed on the EPMM on March 25, 2011.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.



2009 00175496

Bk: 53495 Pg: 1 Doc: EASE
Page: 1 of 6 09/02/2009 03:13 PM

GRANT OF REMEDIATION EASEMENT AND RESTRICTIONS

This Grant of Remediation Easement and Restrictions (the "Agreement") is entered into as of August 21, 2009 (the "Effective Date"), by and among UniFirst Corporation ("UniFirst") and Elmo C. Maynard (the "Owner") (collectively, the "Parties").

INTENT OF THE PARTIES

The Parties are entering this Agreement for the purposes, and in consideration of the mutual covenants and undertakings, set forth herein. The Parties acknowledge and agree that they are entering this Agreement for good and valuable consideration, the receipt of which is hereby acknowledged and the legal sufficiency of which is hereby conclusively established.

Owner is the owner in fee of certain real property located at 95 Franklin Street, Somerville, Massachusetts (the "Property"), more particularly described in Schedule A attached hereto and incorporated herein;

UniFirst has voluntarily agreed to make certain improvements to the building located on the Property, at no expense to Owner, to inhibit vapors from intruding through the foundation of the building (the "Exposure Pathway Elimination Measure" or "EPEM").

The Parties agree that it is in their mutual interest that UniFirst install such an Exposure Pathway Elimination Measure.

As more particularly set forth below, Owner therefore has agreed to: (i) grant UniFirst and its designees access to the Property to install, operate, monitor and maintain the EPEM; and (ii) exercise reasonable care not to cause damage to the EPEM.

I. Remediation Easement

Owner hereby grants to UniFirst and its designees the right and easement to enter upon the Property for the purpose of installing an EPEM to inhibit vapors from intruding through the foundation of the building located on the Property, and an easement for taking all actions necessary or appropriate for the operation, maintenance and monitoring of such EPEM once installed. The rights, privileges, benefits, and burdens as established by these easements shall run with the land for the mutual benefit of the Owner and UniFirst. The easements herein granted shall be perpetual.

Owner Initials E.C.M

Page 1 of 6

Goodwin Procter LLP
53 Exchange Place
Boston, Massachusetts 02109Attn: Nate Brodeur

Owner expressly reserves, and does not relinquish or abdicate her rights to any claims she may have against UniFirst, its directors, officers, or agents for impacts to the Owner, occupants or her Property caused by migration of hazardous materials from the 50 Tufts Street property to her Property, and for any damages she or her successors in interest may sustain as a result of the physical work conducted by UniFirst, its agents, assigns, and successors; and UniFirst agrees to defend, indemnify and hold harmless the Owner, her successors in interest against any claims by any agents or assigns, designees and successors of UniFirst arising from, or attributable to the work done by or for UniFirst on the property.

Neither the granting of the above-described easements nor any term or provision hereof shall be construed as, or constitute evidence of, an admission of any liability or wrongdoing by UniFirst or Owner.

II. Installation of the EPEM

Except as otherwise provided in this Agreement, UniFirst shall bear all costs associated with installation, operation, monitoring, and maintenance of the EPEM.

Owner hereby acknowledges that Owner has reviewed with the scientists and engineers from UniFirst's environmental consultants, GEI Consultants Inc. ("GEI"), the conceptual design of the EPEM, and has approved the conceptual design and work associated with the installation of the EPEM. Owner hereby acknowledges that the final design of the EPEM may be modified as the installation work progresses and the EPEM is monitored. UniFirst agrees that it shall keep Owner apprised of the progress of the work and results of the monitoring.

Owner agrees that UniFirst and/or its designees may act as an Authorized Agent of the Owner for the purpose of obtaining any and all permits required to install and maintain the EPEM, including but not limited to a permit to build, alter, or repair building systems and/or components. Owner similarly agrees that UniFirst and/or its designee may sign preliminary and final construction cost affidavits for the City of Somerville Inspectional Services Division to the extent required to obtain permits required to install and maintain the EPEM. To the extent necessary to obtain any permit required to install and maintain the EPEM, Owner shall: (i) sign a "Certificate of Good Standing" for inclusion in the application for such permit; and/or (ii) resolve any past due accounts with the City of Somerville Treasury Department.

Owner acknowledges that UniFirst will not upgrade or replace building systems or components (for example, plumbing or heating systems, air conditioning units, or water heaters) that do not meet the current Massachusetts Building Code unless specifically directed and required by the City of Somerville Inspectional Services Division. Where compliance with the Massachusetts Building Code is impractical because of construction constraints or regulatory conflicts, Owner agrees to accept Compliance Alternatives, as defined in 780 CMR 3406.

Owner acknowledges that UniFirst and/or its designees may be required to temporarily interrupt electrical, water, sewer, natural gas, telephone, and/or heat in order to install and maintain the EPEM. To the extent such interruptions are necessary; UniFirst and/or its designees will schedule service interruptions at a time, and for a duration, that is convenient for the Owner and/or the Owner's tenants.

Owner acknowledges that, prior to the installation of the EPDM, UniFirst and/or its designee may temporarily remove any items stored, and appliances (washer, dryer, dehumidifier) installed, in the basement of the building on the Property. If removed, the items shall be stored at a secure off-site location and shall be returned, and reinstalled to the extent necessary, following installation of the EPDM. UniFirst and/or its designee will provide the Owner with access to their stored items with forty-eight (48) hours notice.

Owner further acknowledges that installation and maintenance of the EPDM may require modifications to the building envelope, foundation, utility services and systems, fenestration, and/or means of egress to the basement and crawlspace. Owner hereby gives UniFirst and its designees permission to make such changes to the building as are reasonably necessary to install and/or maintain the EPDM.

As part of the EPDM installation, and subject to approval by the City of Somerville, UniFirst or its designee will install a secondary means of egress to the basement in the form of a bulkhead. Due to the limited available vertical and lateral clearance, the bulkhead opening is expected to be smaller than standard entryway dimensions. The bulkhead floor and walls will be constructed of 5,000 psi concrete, stairs constructed of pressure treated wood, and the cover comprised of a Bilco standard steel sided enclosure. The bulkhead will not have a roof structure attached to the building envelope. A weatherproof and lockable door will be installed in the foundation opening.

UniFirst and/or its designee will manage and dispose of all construction debris generated in conjunction with the installation and maintenance of the EPDM, including without limitation any waste materials generated in conjunction with interior demolition work. Notwithstanding the preceding sentence, if UniFirst and/or its designee shall encounter hazardous building materials not related to the 50 Tufts Street Site (e.g., asbestos insulation or building materials) during installation and maintenance of the EPDM, UniFirst shall bear the costs of removing and disposing of such hazardous building materials in accordance with applicable regulations, but Owner shall sign any waste manifests required for such disposal.

III. Performance of the EPDM

The objectives of the EPDM are: (i) to achieve a condition of No Significant Risk, as that term is defined in M.G.L. c. 21E and its implementing regulations at 310 CMR 40.0000 et seq., the Massachusetts Contingency Plan ("MCP"), as of the Effective Date; and (ii) to the extent feasible, eliminate or mitigate the transport of measurable concentrations of constituents of concern into living space. UniFirst agrees to make all best efforts to achieve a condition of No Significant Risk for the Property, and to the extent feasible, eliminate, or mitigate the transport of measurable concentrations of constituents of concern into living space.

Upon completion of installation of the EPDM, UniFirst and/or its designees shall conduct sufficient monitoring, in the reasonable discretion of GEI, to confirm that the EPDM is functioning as designed. UniFirst and/or its designees shall, in a reasonably timely manner, make modifications to the EPDM if the monitoring indicates that such modifications are reasonably necessary to achieve a condition of No Significant Risk.

In accordance with the MCP, UniFirst shall submit to the Massachusetts Department of Environmental Protection a Response Action Outcome ("RAO") Statement, either separately for the Property or as part of a site-wide submission. Owner acknowledges that an Activity and Use Limitation ("AUL") may need to be placed on the Property in support of the RAO Statement, and hereby agrees to sign, and authorize recordation and implementation of, a Notice of Activity and Use Limitation for the Property prepared by GEI. In pertinent part, the purpose of the AUL will be to further memorialize the undertakings by UniFirst and Owner, on behalf of themselves and their executors, heirs, successors and assigns, concerning the installation, operation, maintenance, monitoring, and preservation of the EPEM. Such AUL would include, for example, provisions relating to maintaining the integrity of the EPEM, and access to and use of the basement where the EPEM has been installed.

IV. Restricted Uses of Property

The restrictions conveyed to UniFirst in this Section IV consist of covenants on the part of the Owner to do or refrain from doing the various acts set forth below and to allow UniFirst and its designees to install, operate, maintain, and monitor the EPEM without undue interference. It is hereby acknowledged that these covenants shall constitute a servitude upon the land and run with the land.

Owner hereby agrees and covenants that Owner shall not, without the prior written consent of UniFirst alter or compromise the integrity of any components of the EPEM, including, but not limited to, foundation components and coatings, wall components and coatings, ventilation piping, and EPEM labels. Owner further agrees and covenants that Owner shall not, nor shall they permit their tenants or subtenants to, change the existing use of the basement space for storage, housing of utilities, and building and utility maintenance. The Owner shall not, nor shall they permit their tenants or subtenants to, use the basement as living space.

V. Enforcement of the Restrictions

UniFirst and/or its designees may make inspections of the building and the EPEM at reasonable times and upon reasonable notice to Owner, to assure compliance by Owner with all of the covenants and restrictions herein. In the event that UniFirst becomes aware of any event or circumstance of non-compliance with the terms and conditions herein set forth, UniFirst shall give notice to Owner of such event or circumstance of non-compliance and demand corrective action sufficient to abate such event or circumstance of non-compliance and restore the Property to its previous condition.

Failure by Owner to discontinue, abate, or take such other corrective action as may be demanded by UniFirst within a reasonable time after receipt of notice and reasonable opportunity to take corrective action shall entitle, but not obligate, UniFirst to: (i) take corrective action itself to abate such event or circumstance of non-compliance; and/or (ii) bring an action in a court of competent jurisdiction to enforce the terms of this Agreement and to recover any damages from such non-compliance. If UniFirst chooses to take corrective action, Owner shall reimburse UniFirst for all reasonable costs incurred by UniFirst in investigating the non-compliance and securing its correction. If UniFirst chooses to bring an action in a court of competent jurisdiction to enforce the terms of this Agreement and recovers any damages stemming from Owner's non-

compliance with this Agreement, such damages, when recovered, shall be applied by UniFirst to corrective action on the Property, if necessary. If a court determines that Owner has failed to comply with this Agreement, Owner shall reimburse UniFirst for any reasonable costs of enforcement, including court costs and reasonable attorneys' and consultants' fees, in addition to any other payments ordered by such court. The Parties specifically acknowledge that events and circumstances of non-compliance constitute immediate and irreparable injury, loss, and damage and accordingly entitle UniFirst to such equitable relief, including but not limited to injunctive relief, as the court deems just. The remedies described herein are in addition to, and not in limitation of, any other remedies available to UniFirst at law, in equity, or through administrative proceedings.

No delay or omission by UniFirst in the exercise of any right or remedy upon any breach by Owner shall impair UniFirst's rights or remedies or be construed as a waiver.

VI. Miscellaneous Provisions

A. UniFirst shall be entitled to record this Agreement, or to record a notice making reference to the existence of this Agreement, in the Middlesex County Registry of Deeds. In any deed conveying an interest in all or part of the Property, Owner shall make reference to the easement and restrictions described herein and shall indicate that said easement and restrictions are binding upon all successors in interest in the Property in perpetuity. Owner shall also notify UniFirst of the name(s) and address(es) of Owner's successor(s) in interest.

B. The term "Owner" shall include the heirs, executors, administrators, successors and assigns of the original Owner, Elmo C. Maynard. The term "UniFirst" shall include the successors and assigns of UniFirst Corporation.

C. This Agreement constitutes the complete agreement between the Parties and supersedes all prior understandings, negotiations, representations, and agreements, if any, between UniFirst and Owner.

D. Each Party to this Agreement represents and warrants that it, and the person executing this Agreement on such Party's behalf, is fully authorized to execute this Agreement and to bind such Party to the terms and obligations set forth in this Agreement.

E. This Agreement shall be interpreted in accordance with, and the rights of the Parties governed by, Massachusetts law, without regard to choice of law principles. The Parties agree that all actions arising out of this Agreement shall only be brought in a state or federal court in the Commonwealth of Massachusetts, and each Party consents to venue in and jurisdiction of such court.

F. The Parties do not intend this Agreement to be construed against any Party merely because such Party or such Party's counsel drafted this Agreement or any portion hereof.

G. This Agreement is entered into by the Parties voluntarily. Each Party has had the opportunity to consult counsel in the execution of this Agreement, and each fully understands and acknowledges each limitation, restriction, and obligation which may be imposed by one against another pursuant to the terms and conditions of this Agreement. There have been no

statements, representations, promises, undertakings, or inducements made to a Party by any other Party hereto, except as expressly set forth in this Agreement, that have induced any Party or Parties to enter into and/or execute this Agreement.

H. Any modification, amendment, or waiver of this Agreement (or portion of this Agreement) must be made in writing and signed by the Party to be charged with obligations arising from such modification, amendment, or waiver.

I. Invalidation of any provision hereof shall not affect any other provision of this Agreement.

IN WITNESS WHEREOF, the Parties have executed this Grant of Remediation Easement and Restrictions as of the date and year first above written.

UNIFIRST CORPORATION

OWNER

BY, John R. Badley
Vice President
UniFirst Corporation

BY, Elmo C. Maynard
Elmo C. Maynard

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF

On this 21st day of August, 2009, before me, the undersigned notary public, personally appeared ELMO C. MAYNARD, and proved to me through satisfactory evidence of identification, which was STATE OF MASSACHUSETTS ID CARD, to be the person whose name is signed on the preceding or attached document and acknowledged to me that she signed it voluntarily for its stated purpose.

William J. [Signature] (official signature and seal of notary)
My commission expires: JULY 8, 2016

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF

On this 24 day of August, 2009, before me, the undersigned notary public, personally appeared John R. Badley, as representative for UniFirst Corporation, proved to me through satisfactory evidence of identification, which was D.B., to be the person whose name is signed on the preceding or attached document and acknowledged to me that he/she signed it voluntarily for its stated purpose.

Malcolm R. White (official signature and seal of notary)
My commission expires: 1-9-12



Consulting
Engineers and
Scientists

February 14, 2024
Project 04516-3

CERTIFIED MAIL 9171 9690 0935 0204 6588 68

Mr. Brian Nguyen
Ms. Maithy Nguyen
6 Valyn Lane
Wilmington, MA 01887

Dear Mr. and Ms. Nguyen:

**Re: Summary of Indoor Air Sampling and Environmental Conditions
31-33 Knowlton Street
Somerville, Massachusetts**

The purpose of this letter is to provide a summary of the environmental conditions at the property located at 31-33 Knowlton Street in Somerville, Massachusetts due to contamination originating from the property at 50 Tufts Street, and to request access to the property for continued monitoring of the sub-slab ventilation system that has previously been installed.

A release of chlorinated volatile organic compounds (VOCs) to soil and groundwater on the 50 Tufts Street property was first reported to the Massachusetts Department of Environmental Protection (MassDEP) in 2002. Numerous studies have been conducted relating to the 50 Tufts Street Site, and response actions are currently being conducted under the Massachusetts Contingency Plan (MCP) process. Reports documenting response actions conducted at the Site are available for review at the MassDEP Northeast Regional Office in Woburn, Massachusetts. Records are accessible online at the MassDEP Searchable Sites database (<https://eeaonline.eea.state.ma.us/portal#!/search/wastesite>). Additionally, local public document repositories have been established at the Somerville Central Public Library and at the City of Somerville Clerk's Office. The MassDEP release tracking number (RTN) for the Site is RTN 3-23246. The 31-33 Knowlton Street property is located within the boundaries of the Site (Fig. 1).

The boundaries of the Site were delineated based on the extent of dissolved concentrations of chlorinated VOCs in groundwater. All properties within the Site, including 31-33 Knowlton Street, are serviced by municipal water. Therefore, there is limited potential for direct exposure to contamination in groundwater for human receptors within the Site. Because they are volatile, VOCs have the potential to migrate from subsurface soils or groundwater into the indoor air of buildings. This is known as vapor intrusion.

GEI collected sub-slab soil vapor samples in March 2007. Based on the sub-slab soil vapor sample testing results, an Active Exposure Pathway Mitigation Measure (AEPMM) was installed. The AEPMM, similar to a radon system, consists of sub-slab ventilation piping, and an electric-powered fan to capture soil vapor from below the foundation slab and vent the vapors outside above the roofline. GEI inspects and maintains this system and confirms that it continues to operate as designed.

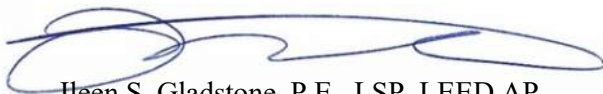
GEI performed indoor air testing after installation of the AEPMM in August 2007, November 2007, February 2008, July 2008, January 2009, and March 2010. We performed four additional rounds of sampling in February 2016, November 2016, March 2017, and September 2017. The results of the sampling are in the attached Table 1. The results of the most recent round of sampling in September 2017 were non-detect for VOCs in indoor air except for tetrachloroethylene (PCE) which was detected below the MassDEP Residential Threshold Value (TV) at a concentration 0.136 ug/m^3 , which is considered not impacted. The indoor air sampling results demonstrate that there is a condition of "No Significant Risk" to occupants of the building at 31-33 Knowlton Street. No Significant Risk is a standard established in the MCP to demonstrate that exposure to residual contamination will not result in unacceptable risks to human health based on regulatory thresholds established in the MCP. At present, the condition of No Significant Risk is dependent on the continued operation of the AEPMM installed at the property.

GEI will continue to maintain, inspect, and monitor operation of the system as long as it operates. As part of routine maintenance, GEI replaces the battery in the radio node affixed to the exterior of the house and monitors the fan. GEI is requesting access to the exterior of the property to continue this maintenance.

Please contact me at igladstone@geiconsultants.com or 781-721-4012 to answer any of your questions and to coordinate access.

Sincerely,

GEI CONSULTANTS, INC.



Heen S. Gladstone, P.E., LSP, LEED AP
Senior Vice President

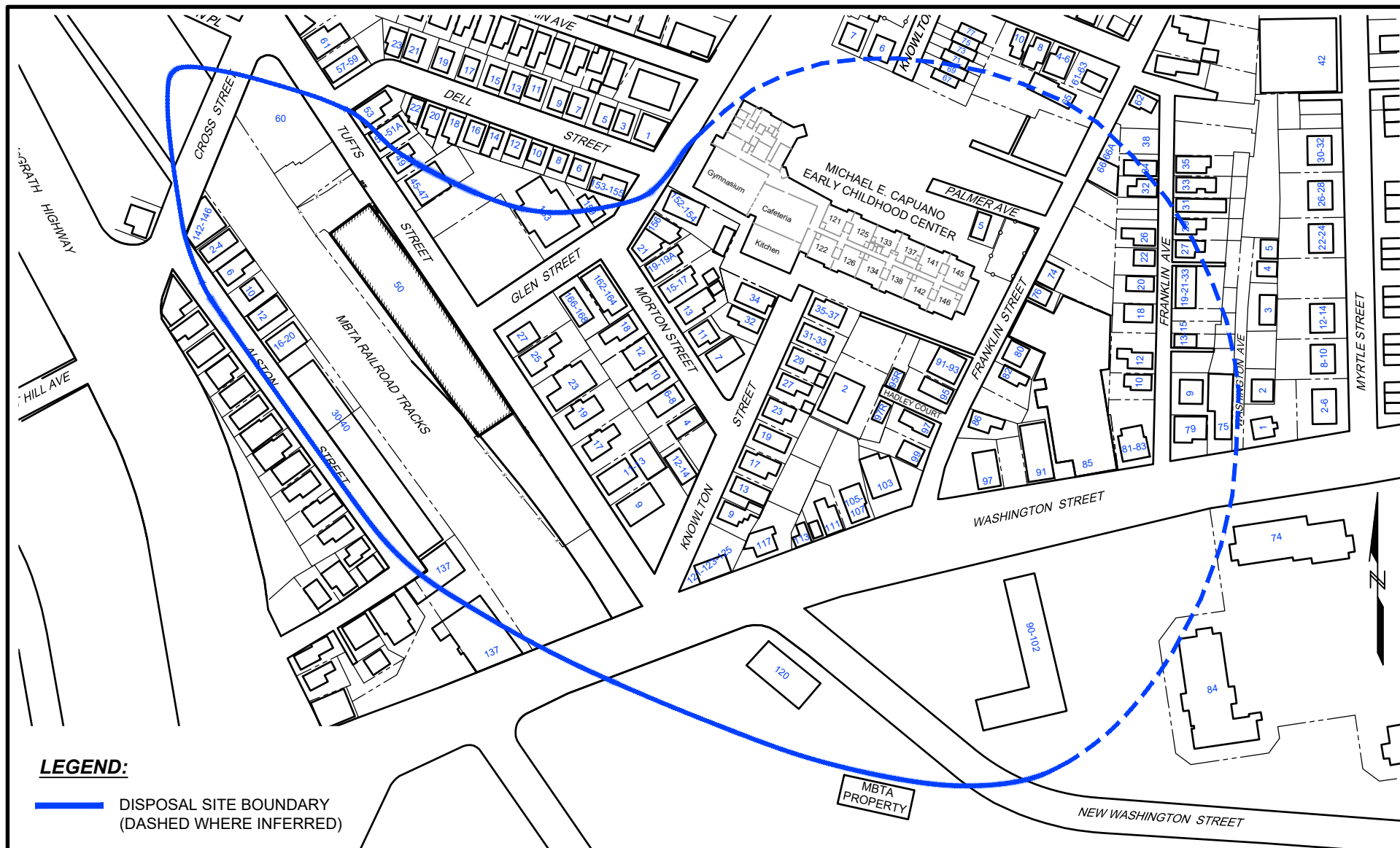


Christopher Coner, CHMM
Project Manager

MEF/COC/ISG:jam

Enclosures

c: Catherine Malagrida, UniFirst Corporation
MassDEP via Status Report



50 Tufts Street
 Somerville, Massachusetts

UniFirst Corporation
 Wilmington, Massachusetts



Project 04516-3

SITE SKETCH

June 2023

Fig . 1

Table 1
Chemical Testing Results - Post-SSDS Installation Indoor Air
31-33 Knowlton Street
Somerville, Massachusetts

			31-33 Knowlton Street							
			Sample Location:		Sample Name:		Sample Date:		Units:	
			31KNOW1		31KNOWB		31KNOW-1		31KNOW-B	
			8/6/2007		8/6/2007		11/12/2007		11/12/2007	
			$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv
Analyte	Method	MassDEP Residential Indoor Air Threshold Values ($\mu\text{g}/\text{m}^3$)								
Volatile Organic Compounds (VOCs)	TO-15									
Carbon tetrachloride		0.54	< 1.3	< 0.20	< 0.69 J	< 0.11 J	< 1.3	< 0.20	0.62 J	0.099 J
Tetrachloroethylene (PCE)		1.4	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20
Trichloroethylene (TCE)		0.4	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. MassDEP = Massachusetts Department of Environmental Protection
5. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
6. The samples collected in January 2009 (31-33KNOW-1A and 1B, and 31-33KNOW-B1 and B2) were field duplicates.
7. On January 25, 2016, GEI observed the installation of a shutdown valve on the riser pipe of the SSDS.
8. The shutdown valve was closed for 1 week prior to collection of indoor air samples on February 2, 2016, November 9, 2016, March 16, 2017 and September 20, 2017.
9. Residential Threshold Values for indoor air taken from the Massachusetts Department of Environmental Protection (MassDEP) "Vapor Intrusion Guidance: Site Assessment, Mitigation and Closure" dated October 2016.
10. Highlighted sample indicates most recent round.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 1
Chemical Testing Results - Post-SSDS Installation Indoor Air
31-33 Knowlton Street
Somerville, Massachusetts

			31-33 Knowlton Street (continued)							
			Sample Location:		31-33KNOW-1		31-33KNOW-B		31-33KNOW-1	
			Sample Name:		2/6/2008		2/6/2008		7/14/2008	
			Sample Date:							
			Units:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method	MassDEP Residential Indoor Air Threshold Values (µg/m ³)								
Volatile Organic Compounds (VOCs)	TO-15									
Carbon tetrachloride		0.54			< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20
Tetrachloroethylene (PCE)		1.4			1.9	0.28	4.9	0.72	< 1.4	< 0.20
Trichloroethylene (TCE)		0.4			< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. MassDEP = Massachusetts Department of Environmental Protection
5. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
6. The samples collected in January 2009 (31-33KNOW-1A and 1B, and 31-33KNOW-B1 and B2) were field duplicates.
7. On January 25, 2016, GEI observed the installation of a shutdown valve on the riser pipe of the SSDS.
8. The shutdown valve was closed for 1 week prior to collection of indoor air samples on February 2, 2016, November 9, 2016, March 16, 2017 and September 20, 2017.
9. Residential Threshold Values for indoor air taken from the Massachusetts Department of Environmental Protection (MassDEP) "Vapor Intrusion Guidance: Site Assessment, Mitigation and Closure" dated October 2016.
10. Highlighted sample indicates most recent round.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 1
Chemical Testing Results - Post-SSDS Installation Indoor Air
31-33 Knowlton Street
Somerville, Massachusetts

			31-33 Knowlton Street (continued)							
			Sample Location:		Sample Name:		Sample Date:		Sample Date:	
			Sample Name:		Sample Date:		Sample Date:		Sample Date:	
			Units:		Units:		Units:		Units:	
Analyte	Method	MassDEP Residential Indoor Air Threshold Values ($\mu\text{g}/\text{m}^3$)	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv
Volatile Organic Compounds (VOCs)	TO-15									
Carbon tetrachloride		0.54	< 1.3	< 0.20	< 1.3	< 0.20	0.62 J	0.099 J	0.59 J	0.094 J
Tetrachloroethylene (PCE)		1.4	< 1.4	< 0.20	< 1.4	< 0.20	1.2 J	0.17 J	1.1 J	0.16 J
Trichloroethylene (TCE)		0.4	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. MassDEP = Massachusetts Department of Environmental Protection
5. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
6. The samples collected in January 2009 (31-33KNOW-1A and 1B, and 31-33KNOW-B1 and B2) were field duplicates.
7. On January 25, 2016, GEI observed the installation of a shutdown valve on the riser pipe of the SSDS.
8. The shutdown valve was closed for 1 week prior to collection of indoor air samples on February 2, 2016, November 9, 2016, March 16, 2017 and September 20, 2017.
9. Residential Threshold Values for indoor air taken from the Massachusetts Department of Environmental Protection (MassDEP) "Vapor Intrusion Guidance: Site Assessment, Mitigation and Closure" dated October 2016.
10. Highlighted sample indicates most recent round.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 1
Chemical Testing Results - Post-SSDS Installation Indoor Air
31-33 Knowlton Street
Somerville, Massachusetts

			31-33 Knowlton Street (continued)							
			Sample Location:		31KNOW-1		31KNOW-B		3133KNOW-1	
			Sample Name:		3/19/10		3/19/10		2/2/16	
			Sample Date:						2/2/16	
			Units:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method	MassDEP Residential Indoor Air Threshold Values (µg/m ³)								
Volatile Organic Compounds (VOCs)	TO-15									
Carbon tetrachloride		0.54			< 1.3	< 0.20	< 1.3	< 0.20	NT	NT
Tetrachloroethylene (PCE)		1.4			< 1.4	< 0.20	< 1.4	< 0.20	0.26 J	0.039 J
Trichloroethylene (TCE)		0.4			< 1.1	< 0.20	< 1.1	< 0.20	< 0.21	< 0.04
									0.19 J	0.036 J

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. MassDEP = Massachusetts Department of Environmental Protection
5. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
6. The samples collected in January 2009 (31-33KNOW-1A and 1B, and 31-33KNOW-B1 and B2) were field duplicates.
7. On January 25, 2016, GEI observed the installation of a shutdown valve on the riser pipe of the SSDS.
8. The shutdown valve was closed for 1 week prior to collection of indoor air samples on February 2, 2016, November 9, 2016, March 16, 2017 and September 20, 2017.
9. Residential Threshold Values for indoor air taken from the Massachusetts Department of Environmental Protection (MassDEP) "Vapor Intrusion Guidance: Site Assessment, Mitigation and Closure" dated October 2016.
10. Highlighted sample indicates most recent round.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 1
Chemical Testing Results - Post-SSDS Installation Indoor Air
31-33 Knowlton Street
Somerville, Massachusetts

			31-33 Knowlton Street (Continued)							
			Sample Location:		31KNOW-1		31KNOW-B		31KNOW-1	
			Sample Name:		11/9/16		11/9/16		3/16/17	
			Sample Date:		Units:		Units:		Units:	
					$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv
Analyte	Method	MassDEP Residential Indoor Air Threshold Values ($\mu\text{g}/\text{m}^3$)								
Volatile Organic Compounds (VOCs)	TO-15									
Carbon tetrachloride		0.54			NT	NT	NT	NT	NT	NT
Tetrachloroethylene (PCE)		1.4			0.62	0.092	0.62	0.092	0.28	0.041
Trichloroethylene (TCE)		0.4			< 0.21	< 0.040	< 0.21	< 0.040	0.86	0.16
									0.24	0.045

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. MassDEP = Massachusetts Department of Environmental Protection
5. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
6. The samples collected in January 2009 (31-33KNOW-1A and 1B, and 31-33KNOW-B1 and B2) were field duplicates.
7. On January 25, 2016, GEI observed the installation of a shutdown valve on the riser pipe of the SSDS.
8. The shutdown valve was closed for 1 week prior to collection of indoor air samples on February 2, 2016, November 9, 2016, March 16, 2017 and September 20, 2017.
9. Residential Threshold Values for indoor air taken from the Massachusetts Department of Environmental Protection (MassDEP) "Vapor Intrusion Guidance: Site Assessment, Mitigation and Closure" dated October 2016.
10. Highlighted sample indicates most recent round.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 1
Chemical Testing Results - Post-SSDS Installation Indoor Air
31-33 Knowlton Street
Somerville, Massachusetts

			Sample Location: 31-33 Knowlton Street (Continued)			
			Sample Name: 31-33KNOW-FF		31-33KNOW-B	
			Sample Date: 9/20/17		9/20/17	
			Units:			
			$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	ppbv
Analyte	Method	MassDEP Residential Indoor Air Threshold Values ($\mu\text{g}/\text{m}^3$)				
Volatile Organic Compounds (VOCs)	TO-15					
Carbon tetrachloride		0.54	NT	NT	NT	NT
Tetrachloroethylene (PCE)		1.4	< 0.136	< 0.020	0.136	0.020
Trichloroethylene (TCE)		0.4	< 0.107	< 0.020	< 0.107	< 0.020

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. MassDEP = Massachusetts Department of Environmental Protection
5. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
6. The samples collected in January 2009 (31-33KNOW-1A and 1B, and 31-33KNOW-B1 and B2) were field duplicates.
7. On January 25, 2016, GEI observed the installation of a shutdown valve on the riser pipe of the SSDS.
8. The shutdown valve was closed for 1 week prior to collection of indoor air samples on February 2, 2016, November 9, 2016, March 16, 2017 and September 20, 2017.
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10. Highlighted sample indicates most recent round.

Qualifying Note:

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Consulting
Engineers and
Scientists

March 12, 2024
Project 04516-3

CERTIFIED MAIL 9171 9690 0935 0204 6587 83

Mr. Juan Rivera
95R Franklin Street
Somerville, MA 02145

Dear Mr. Rivera:

**Re: Summary of Indoor Air Sampling and Environmental Conditions
95R Franklin Street
Somerville, Massachusetts**

The purpose of this letter is to summarize the environmental conditions at 95R Franklin Street in Somerville, Massachusetts associated with the release of chlorinated volatile organic compounds (VOCs) to soil and groundwater on the 50 Tufts Street Property.

A release of chlorinated VOCs on the 50 Tufts Street Property was first reported to the Massachusetts Department of Environmental Protection (MassDEP) in 2002. Numerous studies have been conducted relating to the 50 Tufts Street Site, and response actions are currently being conducted under the Massachusetts Contingency Plan (MCP) process. Reports documenting response actions conducted at the Site are available for review at the MassDEP Northeast Regional Office in Woburn, Massachusetts. Records are accessible online at the MassDEP Searchable Sites database (<https://eeaonline.eea.state.ma.us/portal#!/search/wastesite>). Additionally, local public document repositories have been established at the Somerville Central Public Library and at the City of Somerville Clerk's Office. The MassDEP release tracking number (RTN) for the Site is RTN 3-23246. The 95R Franklin Street property is located within the boundaries of the Site (Fig. 1).

The boundaries of the Site were delineated based on the extent of dissolved concentrations of chlorinated VOCs in groundwater. All properties within the Site, including 95R Franklin Street, are serviced by municipal water. Therefore, there is limited potential for direct exposure to contamination in groundwater for human receptors within the Site. Because they are volatile, VOCs have the potential to migrate from subsurface soils or groundwater into the indoor air of buildings. This is known as vapor intrusion.

GEI collected a sub-slab soil vapor sample from beneath the building in March 2007. Based on the soil vapor sampling results, an exposure pathway mitigation measure (EPMM) was recommended. Installation of the EPMM was completed in December 2007. The EPMM consists of a venting system beneath the basement floor, and an epoxy vapor barrier system on the basement walls. Soil vapor beneath the building is captured via multiple extraction pipes installed beneath the concrete floor in the basement. The soil vapor is re-routed from beneath the slab to the atmosphere via exterior piping that extends vertically above the roofline.

Following the installation of the EPMM, GEI collected indoor air samples from the basement and first floor in December 2007, April 2009, and March 2010. We have attached a summary table of the indoor air sampling results.

The indoor air sampling results confirmed that the EPMM was functioning properly and demonstrated that there is a condition of "No Significant Risk" to occupants of the building at 95R Franklin Street. No Significant Risk is a standard established in the MCP to demonstrate that exposure to residual contamination will not result in unacceptable risks to human health based on regulatory thresholds.

Following installation of the EPMM, the owner of 95R Franklin Street executed a Notice of Activity and Use Limitation ("AUL") that was recorded in the Middlesex South Registry of Deeds on October 23, 2009. An AUL is a document that provides information to current and future property owners and other interested parties about (1) the nature and extent of contamination on the property, (2) the appropriateness of certain uses and activities on the property, and (3) a property owner's obligations to ensure that the requirements of the AUL continue to be met.

In order to maintain a condition of No Significant Risk, the AUL for 95R Franklin Street requires that the EPMM be inspected at least annually to confirm that it is functioning properly. Specific requirements to preserve the EPMM are detailed in the AUL. A copy of the AUL is enclosed with this letter.

GEI on behalf of UniFirst Corporation would like to schedule a time to access the Property to maintain, inspect, and monitor operation of the system. The inspection should take approximately 15 minutes and can be performed on a day and time that is convenient for you. Please contact me at igladstone@geiconsultants.com or 781-721-4012 to answer any of your questions and to coordinate access.

Sincerely,

GEI CONSULTANTS, INC.



Ileen S. Gladstone, P.E., LSP, LEED AP
Senior Vice President

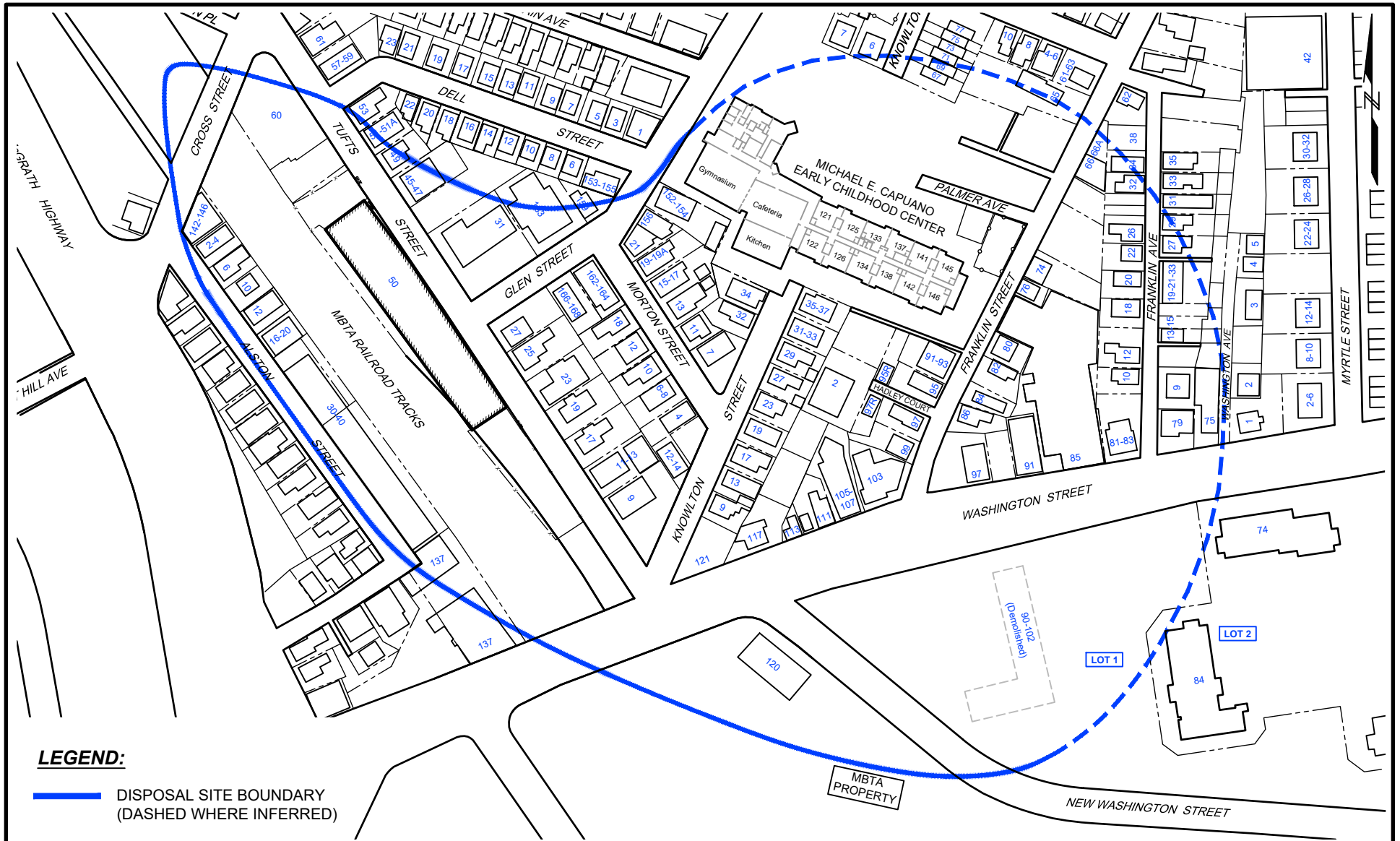


Christopher Coner, CHMM
Senior Project Manager

MEF/COC/ISG:jam

Enclosures

c: Catherine Malagrida, UniFirst Corporation
MassDEP via Status Report



50 Tufts Street
Somerville, Massachusetts

UniFirst Corporation
Wilmington, Massachusetts



Project 04516-3

SITE SKETCH

September 2023

Fig . 1

Table 1 - Chemical Testing Results -
Post-EPEM Installation Indoor Air
95R Franklin Street
Somerville, Massachusetts

		95R Franklin Street									
		95R FRANK-B2		95RFRANK-1		95RFran-1A		95RFran-B2		95R Frank-1	
		11/15/07		11/15/07		12/23/07		12/23/07		12/28/07	
Units:		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method										
Volatile Organic Compounds (VOCs)	TO-15										
Carbon tetrachloride		0.63 J	0.10 J	0.61 J	0.097 J	0.58 J	0.092 J	< 1.3	< 0.20	0.62 J	0.098 J
1,2-Dichloroethane (DCA)		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20
Tetrachloroethylene (PCE)		1.3 J	0.19 J	1.3 J	0.19 J	1.0 J	0.15 J	< 1.4	< 0.20	1.1 J	0.16 J

General Notes:

1. Analytes detected in at least one sample are reported here.
For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. The samples collected in March 2010 were collected over a 24-hour period from March 8 through 9, 2010.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 1 - Chemical Testing Results -
Post-EPEM Installation Indoor Air
95R Franklin Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units:		95R Franklin Street (continued)									
		95R Frank-B 12/28/07		95RFRANK-1 4/3/09		95RFRANK-B 4/3/09		95RFRANK-1 3/9/10		95RFRANK-B 3/9/10	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method										
Volatile Organic Compounds (VOCs)	TO-15										
Carbon tetrachloride		< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20	< 1.3	< 0.20
1,2-Dichloroethane (DCA)		< 0.81	< 0.20	< 0.81	< 0.20	< 0.81	< 0.20	1.1	0.26	< 0.81	< 0.20
Tetrachloroethylene (PCE)		1.1 J	0.16 J	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20	< 1.4	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here.
For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. "<" = The analyte was not detected at a concentration above the specified laboratory reporting limit.
5. The samples collected in March 2010 were collected over a 24-hour period from March 8 through 9, 2010.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.



Bk: 53716 Pg: 320 Doc: NOT
Page: 1 of 21 10/23/2009 11:21 AM

Form 1075

NOTICE OF ACTIVITY AND USE LIMITATION

M.G.L. c. 21E, § 6 and 310 CMR 40.0000

Disposal Site Name: 50 Tufts Street, Somerville, Massachusetts
DEP Release Tracking No. (s): 3-23246

This Notice of Activity and Use Limitation ("Notice") is made as of this 23rd day of October, 2009, by Michael T. Fleming as Trustee of the 95R Franklin Street Nominee Trust, c/o Marsh, Moriarty, Ontell, & Golder, PC, 18 Tremont Street, Boston, Massachusetts, together with his successors and assigns (collectively "Owner").

WITNESSETH:

WHEREAS, Michael T. Fleming as Trustee of the 95R Franklin Street Nominee Trust is the owner in fee simple of that certain parcel of land located at 95R Franklin Street in Somerville, Middlesex County, Massachusetts with the buildings and improvements thereon, pursuant to a deed recorded with the Middlesex South District Registry of Deeds in Book 50978, Page 526;

WHEREAS, said parcel of land, which is more particularly bounded and described in Exhibit A, attached hereto and made a part hereof ("Property"), is subject to this Notice of Activity and Use Limitation. The Property is shown on a plan recorded in the Middlesex South District Registry of Deeds in Plan Book 298, Plan 35;

WHEREAS, the Property comprises part of a disposal site as the result of a release of oil and/or hazardous material. Exhibit B is a sketch plan showing the relationship of the Property subject to this Notice of Activity and Use Limitation to the boundaries of said disposal site existing within the limits of the Property and to the extent such boundaries have been established. Exhibit B is attached hereto and made a part hereof; and

WHEREAS, one or more response actions have been selected for a Portion of the Disposal Site in accordance with M.G.L. c. 21E ("Chapter 21E") and the Massachusetts Contingency Plan, 310 CMR 40.0000 ("MCP"). Said response actions are based upon (a) the restriction of human access to and contact with oil and/or hazardous material in soil and/or (b) the restriction of certain activities occurring in, on, through, over, or under the Property. The basis for such restrictions is set forth in an Activity and Use Limitation Opinion ("AUL Opinion"), dated OCTOBER 5, 2009, (which is attached hereto as Exhibit C and made a part hereof);

NOW, THEREFORE, notice is hereby given that the activity and use limitations set forth in said AUL Opinion are as follows:

1. Activities and Uses Consistent with the AUL Opinion. The AUL Opinion provides that a condition of No Significant Risk to health, safety, public welfare, or the environment exists for any foreseeable period of time (pursuant to 310 CMR 40.0000) if the following activities and uses occur on the Property:

50 TUFTS STREET, SOMERVILLE
95R FRANKLIN STREET, SOMERVILLE

03-2-1

Form 1075

Notice Of Activity And Use Limitation

M.G.L. c. 21E, § 6 and 310 CMR 40.0000

Page 2 of 6

- (i) Any use of the existing building located on the Property, including use of the building as a residence, so long as the vapor barrier and venting system comprising the Exposure Pathway Elimination Measure ("EPEM") are maintained and, if an electric fan is added to the EPEM, such fan operates continuously;
- (ii) Activities and uses which are not identified by this Notice as being inconsistent with maintaining a condition of No Significant Risk;
- (iii) Such other activities or uses which, in the Opinion of an LSP, shall present no greater risk of harm to health, safety, public welfare, or the environment than the activities and uses set forth in this Paragraph; and
- (iv) Such other activities and uses not identified as being Activities and Uses Inconsistent with the AUL.

2. Activities and Uses Inconsistent with the AUL Opinion. Activities and uses which are inconsistent with the objectives of this Notice of Activity and Use Limitation, and which, if implemented at the Property, may result in a significant risk of harm to health, safety, public welfare, or the environment or in a substantial hazard, are as follows:

- (i) In the basement, removal or damage of the concrete floor, the overlying epoxy coating, the vapor barrier, the sub-slab venting system, and/or the protective stucco wall finish;
- (ii) In the basement, any activities which may damage and/or compromise the concrete floor, the overlying epoxy coating, the vapor barrier, the sub-slab venting system, and/or the protective stucco wall finish;
- (iii) In the crawlspace, removal or damage of the vapor transmission layer, vapor barrier, geotextile, and/or the peastone layer;
- (iv) In the crawlspace, any activities which may damage and/or compromise the vapor transmission layer, vapor barrier, geotextile, and/or the peastone layer;
- (v) In the event an electric fan is added to the EPEM, removal or damage of such fan;
- (vi) In the event an electric fan is added to the EPEM, shutting down, turning off, or removing electrical power to the fan, or any other activity that would make such fan inoperable;
- (vii) Any activities which may damage and/or compromise the ventilation piping located on the exterior of the building; and
- (viii) Construction of any occupied structure at the Property without the

installation of an EPEM and subsequent indoor air sampling to confirm its effectiveness in preventing or mitigating vapor intrusion into the structure.

3. Obligations and Conditions Set Forth in the AUL Opinion. Obligations and/or conditions to be undertaken and/or maintained at the Property to maintain a condition of No Significant Risk as set forth in the AUL Opinion shall include the following:

- (i) In the basement, the integrity of the concrete floor, the overlying epoxy floor coating, the vapor barrier, the sub-slab venting system, and the protective stucco wall finish of the existing building must be preserved and the elements of the EPEM must not be damaged or altered;
- (ii) In the crawlspace, the integrity of the vapor transmission layer, vapor barrier, geotextile, and peastone layer must be preserved and the elements of the EPEM must not be damaged or altered;
- (iii) On the exterior of the building, the integrity of the ventilation piping must be preserved, and the elements of the piping must not be damaged or altered;
- (iv) In the event an electric fan is added to the EPEM, power must be maintained to such fan and the fan may not be shut down;
- (v) In the event an electric fan is added to the EPEM, notification must be provided to UniFirst Corporation, together with its successors and assigns and/or its agents, if such fan becomes inoperable, and access must be provided to UniFirst Corporation, together with its successors and assigns and/or its agents, to repair or replace the fan as necessary;
- (vi) Access must be provided, at least annually, to UniFirst Corporation, together with its successors and assigns and/or its agents, to inspect the EPEM for damage and, to the extent necessary to continue the EPEM's effectiveness in preventing or mitigating vapor intrusion into the building, to conduct indoor air testing and/or repair or replace the vapor barrier, venting system, and/or electric fan (to the extent such a fan is added to the EPEM); and
- (vii) Any future construction of an occupied structure at the Property must include the installation of an EPEM to prevent or mitigate vapor intrusion into the structure. The design of the EPEM must be incorporated into the design and construction of the future structure and must be evaluated by an LSP. Follow-up indoor air testing must be conducted to confirm the effectiveness of the EPEM in preventing or mitigating vapor intrusion into the structure.

Form 1075

Notice Of Activity And Use Limitation

M.G.L. c. 21E, § 6 and 310 CMR 40.0000

Page 4 of 6

4. Proposed Changes in Activities and Uses. Any proposed changes in activities and uses at the Property which may result in higher levels of exposure to oil and/or hazardous material than currently exist shall be evaluated by an LSP who shall render an Opinion, in accordance with 310 CMR 40.1080 *et seq.*, as to whether the proposed changes will present a significant risk of harm to health, safety, public welfare, or the environment. Any and all requirements set forth in the Opinion to meet the objective of this Notice shall be satisfied before any such activity or use is commenced.

5. Violation of a Response Action Outcome. The activities, uses, and/or exposures upon which this Notice is based shall not change at any time to cause a significant risk of harm to health, safety, public welfare, or the environment or to create substantial hazards due to exposure to oil and/or hazardous material without the prior evaluation by an LSP in accordance with 310 CMR 40.1080 *et seq.*, and without additional response actions, if necessary, to achieve or maintain a condition of No Significant Risk or to eliminate substantial hazards.

If the activities, uses, and/or exposures upon which this Notice is based change without the prior evaluation and additional response actions determined to be necessary by an LSP in accordance with 310 CMR 40.1080 *et seq.*, the owner or operator of the Property subject to this Notice at the time that the activities, uses and/or exposures change, shall comply with the requirements set forth in 310 CMR 40.0020.

6. Incorporation Into Deeds, Mortgages, Leases, and Instruments of Transfer. This Notice shall be incorporated either in full or by reference into all future deeds, easements, mortgages, leases, licenses, occupancy agreements, or any other instrument of transfer, whereby an interest in and/or a right to use the Property or a portion thereof is conveyed.

Owner hereby authorizes and consents to the filing and recordation and/or registration of this Notice, said Notice to become effective when executed under seal by the undersigned LSP, and recorded and/or registered with the appropriate Registry(ies) of Deeds and/or Land Registration Office(s).

WITNESS the execution hereof under seal this 23rd day of September, 2009.



Michael T. Fleming, Trustee
95R Franklin Street Nominee Trust

Form 1075
 Notice Of Activity And Use Limitation
 M.G.L. c. 21E, § 6 and 310 CMR 40.0000
 Page 5 of 6

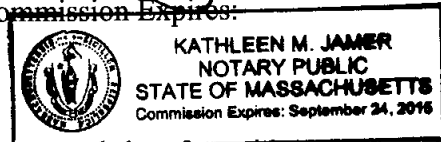
COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss

_____, 2009

On this 23 day of September, 2009, before me, the undersigned notary public, personally appeared Michael Fleming, proved to me through satisfactory evidence of identification, which were MA. Driver License, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.

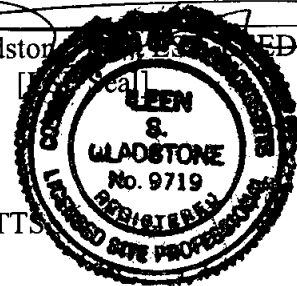
Kathleen M. Jamer
 Notary Public
 My Commission Expires:



The undersigned LSP hereby certifies that she executed the aforesaid Activity and Use Limitation Opinion attached hereto as Exhibit C and made a part hereof and that in her Opinion this Notice of Activity and Use Limitation is consistent with the terms set forth in said Activity and Use Limitation Opinion.

Date: 10/5/09

Ileen S. Gladstone Notary Public



COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss

_____, 2009

On this 5 day of October, 2009, before me, the undersigned notary public, personally appeared ILEEN GLADSTONE, proved to me through satisfactory evidence of identification, which were MA. DRIVER LICENSE, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose.

Ileen S. Gladstone
 Notary Public
 My Commission Expires:

Form 1075
Notice Of Activity And Use Limitation
M.G.L. c. 21E, § 6 and 310 CMR 40.0000
Page 6 of 6

Upon recording, return to:

Michael T. Fleming, Trustee
95R Franklin Street Nominee Trust
c/o Marsh, Moriarty, Ontell, & Golder, PC
Attn: Michael Marsh
18 Tremont Street
Boston, MA 02108-2301

Exhibit A

Metes and Bounds Description of AUL Area

Bk: 50978 Pg: 526



Bk: 60978 Pg: 526 Doc: DEED
Page: 1 of 2 04/02/2008 10:52 AM

QUITCLAIM DEED

I, Susan Southwick now know as Susan Lynn Warren-Southwick, of Somerville, Middlesex County, Massachusetts, for consideration of Two Hundred Ninety-Five Thousand (\$295,000.00) dollars paid, grant to Michael T. Fleming, Trustee of the 95R Franklin Street Nominee Trust under a Declaration of Trust dated March 31, 2008, recorded herewith, with an address of c/o Marsh Moriarty Ontell & Golder, PC, 18 Tremont Street, Boston, MA 02108, Attn: Michael Marsh

with QUITCLAIM COVENANTS

The land in Somerville, Middlesex County, Massachusetts, with the buildings thereon, being a portion of Lot 3 on a Plan of Land in Somerville, belonging to Walter M. Hadley, made by A.F. Sargent, Surv., dated June 21, 1918, and recorded with Middlesex South District Deeds in Book of Plans 298, Plan 35, bounded and described as follows:

NORTHWESTERLY	by land of Smith & Hopkins, 77.5 feet;
NORTHEASTERLY	by other land of said Smith & Hopkins, 22.5 feet;
SOUTHEASTERLY	by Lot 4 on said plan, 45 feet;
NORTHEASTERLY	by said Lot 4, 2.5 feet
SOUTHEASTERLY	by land now or formerly of George A. Hadley, 33.75 feet;
SOUTHWESTERLY	by a 16 foot passageway which is continuation of a way from Franklin Street as shown on said plan, with the privilege of passageway over and use of said continuation of the way for the convenience of the herein demised land for all purposes for which a passageway may be used in the City of Somerville.

Subject to a Grant of Remediation Easement and Restrictions from Susan Southwick and Melissa Warren to UniFirst dated January 28, 2008 and recorded March 14, 2008 at the Middlesex South Registry of Deeds in Book 50885, Page 228.

Subject to a right of passageway and continuation of passageway for all purposes for which a passageway may be used in the City of Somerville as shown on a Plan of Land recorded in the Middlesex South Registry of Deeds in Plan Book 298, Page 35.

Meaning and intending to describe and convey the premises conveyed by deed dated July 15, 1997 recorded in the Middlesex South District Registry of Deeds in Book 27524, Page 258.

MASSACHUSETTS EXCISE TAX
Southern Middlesex District ROD # 001
Date: 04/02/2008 10:52 AM
Ctd# 108810 11672 Doc# 00063280
Fee: \$1,245.20 Cons: \$295,000.00

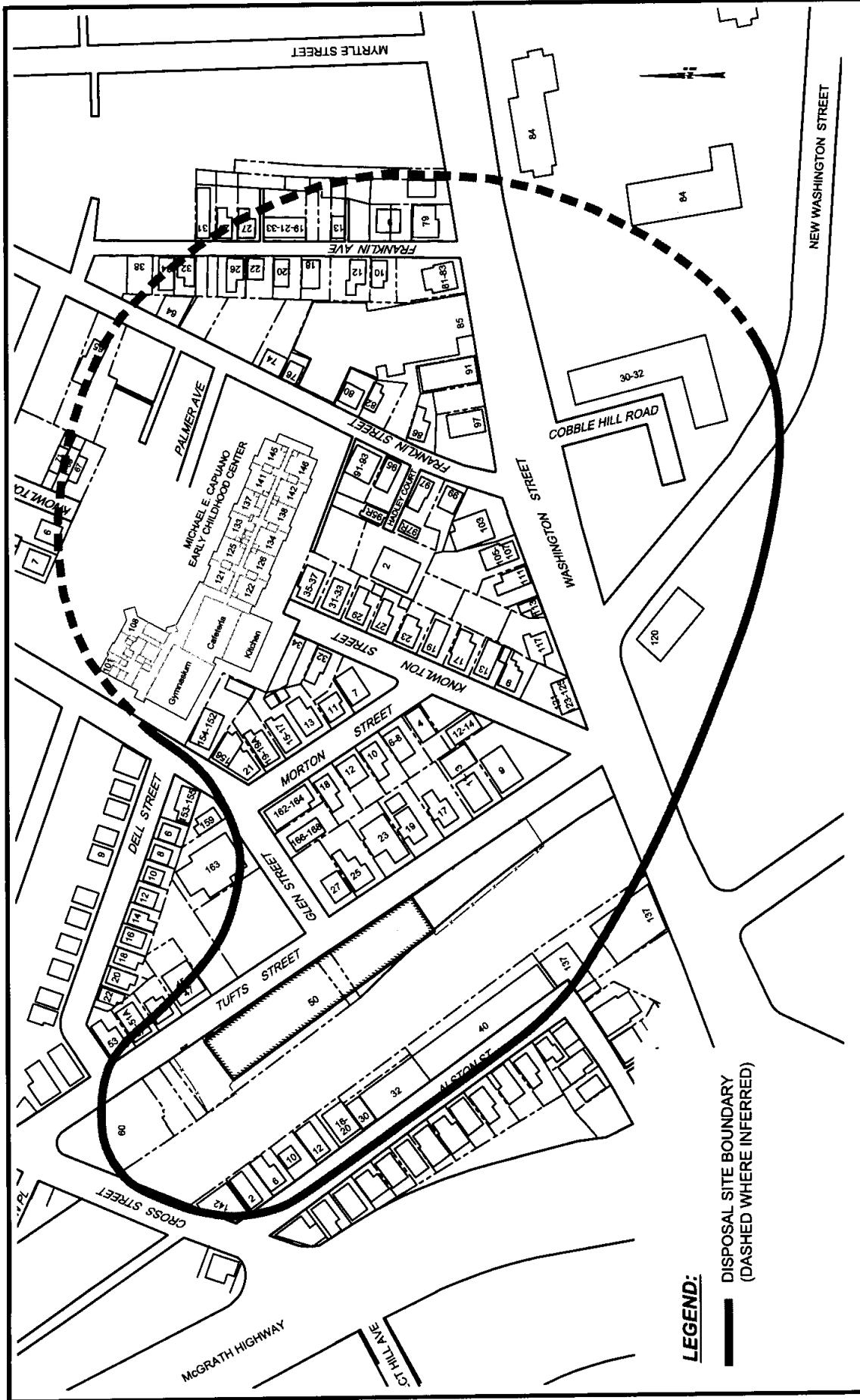
LIBD/209077/1.2 LEK

04/01/2008 9:46 AM

Address of Property: 95R Franklin Street, Somerville, Massachusetts 02143
Address of Grantee: c/o Marsh, Moriarty Ontell & Golder, PC, 18 Tremont Street, Boston, MA 02108, Attn: Michael Marsh

Exhibit B

Sketch Plan of Disposal Site Boundary (Exhibit B-1)
Sketch Plan of AUL Area (Exhibit B-2)



LEGEND:

— DISPOSAL SITE BOUNDARY
 - - - (DASHED WHERE INFERRED)



Activity and Use Limitation
 50 Tufts Street
 Somerville, Massachusetts
 UniFirst Corporation
 Wilmington, Massachusetts



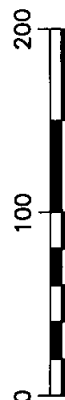
SITE SKETCH

Project 04516-3 September 2009 Exhibit B-1



LEGEND:

DISPOSAL SITE BOUNDARY
(DASHED WHERE INFERRED)



Activity and Use Limitation
50 Tufts Street
Somerville, Massachusetts
UniFirst Corporation
Wilmington, Massachusetts



SITE SKETCH

Project 04516-3 September 2009 Exhibit B-2

Exhibit C

LSP AUL Opinion



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC113A

ACTIVITY & USE LIMITATION (AUL) OPINION FORM

Pursuant to 310 CMR 40.1056 & 40.1070 - 40.1084 (Subpart J)

Release Tracking Number

3

-

23246

A. DISPOSAL SITE LOCATION:

1. Disposal Site Name: **50 TUFTS ST & PROP ACROSS THE ST**

2. Street Address: **50 TUFTS ST**

3. City/Town: **SOMERVILLE**

4. ZIP Code: **02145-4129**

B. THIS FORM IS BEING USED TO: (check one)

- ☒ 1. Provide the LSP Opinion for a **Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1074.
- ☐ 2. Provide the LSP Opinion for an **Evaluation of Changes in Land Uses/Activities and/or Site Conditions after a Response Action Outcome Statement**, pursuant to 310 CMR 40.1080. Include BWSC113A as an attachment to BWSC113. Section A and C do not need to be completed.
- ☐ 3. Provide the LSP Opinion for an **Amended Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1081(4).
- ☐ 4. Provide the LSP Opinion for a **Partial Termination of a Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1083(3).
- ☐ 5. Provide the LSP Opinion for a **Termination of a Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1083(1)(d).
- ☐ 6. Provide the LSP Opinion for a **Grant of Environmental Restriction**, pursuant to 310 CMR 40.1071.
- ☐ 7. Provide the LSP Opinion for an **Amendment of a Grant of Environmental Restriction**, pursuant to 310 CMR 40.1081(3).
- ☐ 8. Provide the LSP Opinion for a **Partial Release of a Grant of Environmental Restriction**, pursuant to 310 CMR 40.1083(2).
- ☐ 9. Provide the LSP Opinion for a **Release of a Grant of Environmental Restriction**, pursuant to 310 CMR 40.1083(1)(c).
- ☐ 10. Provide the LSP Opinion for a **Confirmatory Activity and Use Limitation**, pursuant to 310 CMR 40.1085(4).

(Unless otherwise noted above, all sections of this form (BWSC113A) must be completely filled out, printed, stamped, signed with black ink and attached as an exhibit to the AUL Document to be recorded and/or registered with the Registry of Deeds and/or Land Registration Office.)

C. AUL INFORMATION:

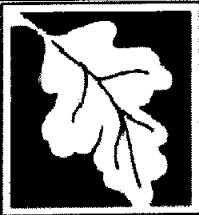
1. Is the address of the property subject to AUL different from the disposal site address listed above?

☐ a. No ☒ b. Yes If yes, then fill out address section below.

2. Street Address: **95R FRANKLIN STREET**

3. City/Town: **SOMERVILLE**

4. ZIP Code: **02145-4230**



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC113A

ACTIVITY & USE LIMITATION (AUL) OPINION FORM

Release Tracking Number

Pursuant to 310 CMR 40.1056 & 40.1070 - 40.1084 (Subpart J)

3

-

23246

D. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> if Section B indicates that a **Notice of Activity and Use Limitation** is being registered and/or recorded, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1074;

> if Section B indicates that an **Evaluation of Changes in Land Uses/Activities and/or Site Conditions after a Response Action Outcome Statement** is being submitted, this evaluation was developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1080;

> if Section B indicates that an **Amended Notice of Activity and Use Limitation or Amendment to a Grant of Environmental Restriction** is being registered and/or recorded, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 40.1081;

> if Section B indicates that a **Termination or a Partial Termination of a Notice of Activity and Use Limitation, or a Release or Partial Release of a Grant of Environmental Restriction** is being registered and/or recorded, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1083;

> if Section B indicates that a **Grant of Environmental Restriction** is being registered and/or recorded, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1071;

> if Section B indicates that a **Confirmatory Activity and Use Limitation** is being registered and/or recorded, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1085(4);

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #: 9719

2. First Name: ILEEN S

3. Last Name: GLADSTONE

4. Telephone: (781) 721-4012

5. Ext.:

6. FAX:

7. Signature:

8. Date: 10/15/09

mm/dd/yyyy

9. LSP Stamp:

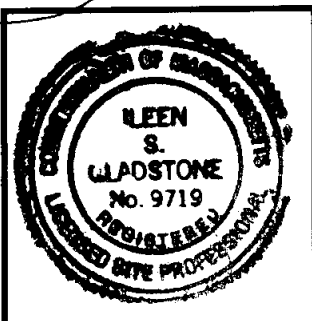


EXHIBIT C*OCTOBER 5*, 2009

Reference: Activity and Use Limitation Opinion
95R Franklin Street
Somerville, Massachusetts
DEP RTN 3-23246

Introduction

This Licensed Site Professional (LSP) Opinion for a Notice of Activity and Use Limitation (AUL) was prepared by GEI Consultants, Inc. (GEI) for the property located at 95R Franklin Street in Somerville, Massachusetts (the Property). The Property comprises a portion of the 50 Tufts Street disposal site (the Site) assigned Release Tracking Number (RTN) 3-23246 by the Massachusetts Department of Environmental Protection (DEP). In 2002, a historical release of chlorinated volatile organic compounds (VOCs) to soil and groundwater at the Site was reported to the DEP. Subsequent investigations at the Site identified chlorinated VOCs in indoor air at the Site, and in groundwater and indoor air at residential properties in the vicinity of the 50 Tufts Street property, including 95R Franklin Street. The Property and the 50 Tufts Street property are shown on Fig. 1. UniFirst Corporation of Wilmington, Massachusetts is conducting response actions at the Site.

This LSP Opinion was prepared in accordance with the Massachusetts Contingency Plan (MCP; 310 CMR 40.1074) and the DEP Guidance on Implementing AULs (May 1999). This AUL Opinion applies to the entire Property, as defined in Exhibit A and indicated on Exhibit B of the AUL.

This LSP Opinion provides the following information:

- Why an AUL is appropriate to achieve and/or maintain a condition of No Significant Risk;
- Activities and uses to be prohibited and/or limited;
- Activities and uses to be permitted; and
- Obligations and conditions necessary to meet the objectives of the AUL.

Background

The Property is located in a commercial/residential zoning district, fronts Hadley Court to the south, and is bounded by residential property to the east and west, and a parking area for the Capuano Early Childhood Center to the north. The Property is located within the Site boundary associated with a historic release of chlorinated volatile organic compounds (VOCs) to soil and groundwater at 50 Tufts Street, located southwest of the Property across Tufts Street. From approximately 1955 to approximately 2002, 50 Tufts Street was used for storage and distribution of industrial chemicals, laundry supplies, and dry cleaning supplies. Chemicals stored at and delivered to and from 50 Tufts Street included chlorinated solvents. These chlorinated VOCs – particularly tetrachloroethylene (PCE), trichloroethylene (TCE), and 1,1,1-trichloroethane (TCA) – have been detected in soil, soil vapor, indoor air, and groundwater at 50 Tufts Street.

Based on the results of assessments conducted to date, the Site includes the 50 Tufts Street property, together with portions of properties in the neighborhood to the east and west. Based on multiple rounds of groundwater measurements, the general direction of groundwater flow at the Site is to the northeast across Tufts Street towards Knowlton and Franklin Streets.

Based on groundwater, soil, soil vapor, and indoor air sampling results, GEI identified a several-block area near 50 Tufts Street for evaluation of vapor intrusion as a potential exposure pathway. The evaluation included a program of sub-slab soil vapor testing and indoor air testing. Indoor air testing at the Property indicated the presence of chlorinated VOCs, particularly PCE, and the likelihood of a complete vapor intrusion exposure pathway. The residence at the Property includes a basement and crawl space.

To eliminate or mitigate the exposure pathway, UniFirst Corporation installed an Exposure Pathway Elimination Measure (EPEM) at the Property. In the basement, the EPEM consists of a vapor trench installed around the perimeter of the basement floor and a vapor barrier system covering both the floor and the fieldstone foundation walls, together with a venting system beneath the vapor barrier. Sketches of the EPEM installed in the basement and crawl space are shown in Fig. 2.

Perforated polyvinyl chloride (PVC) pipe was installed in the perimeter trench and the trench was backfilled with crushed stone and capped with three inches of concrete to match the existing slab grade. The trench piping was connected to above-slab ventilation piping that extends up to the floor joists, exits the building above the sill, and extends above the roofline. The EPEM also includes a wall vapor barrier system comprised of a vapor transmission plane, flexible membrane, and an approximately 1-inch-thick layer of cementitious stucco that extends up to the elevation of the outdoor ground surface. The modified basement walls and floor are coated with a two-part epoxy vapor barrier. Soil vapor is captured by the vapor transmission layer and vapor trench piping and ventilated to the outdoor ambient air, bypassing the pathway through the slab into indoor air. The ventilation system is designed so that an electric powered fan may be added to facilitate the flow of soil vapor through the ventilation system. A fan will be added to the ventilation system if and when an LSP determines that such facilitation of flow is necessary or appropriate.

A crawl space is located on the eastern side of the building (Fig. 2). The EPEM in the crawl space consists of a porous geotextile vapor transmission layer applied on the ground surface and covered by a rubberized membrane vapor barrier. A thin filter fabric and 2 to 3 inches of peastone were placed over the vapor barrier for protection. The vapor transmission layer is tied into ventilation piping that extends vertically from the crawl space, exits the building envelope, and is vented above the roofline of the building. Downdraft prevention caps were installed at the end of the ventilation pipes from the crawlspace and basement.

Indoor air testing conducted after the installation of the EPEM did not detect VOCs above laboratory method reporting limits. Installation of the EPEM achieved a condition of No Significant Risk at 95R Franklin Street.

Why an AUL is appropriate to achieve and/or maintain a condition of No Significant Risk at the Site:

The EPEM eliminated or mitigated the exposure pathway for vapor intrusion of chlorinated VOCs into the indoor air at 95R Franklin Street and achieved a condition of No Significant Risk. In order to maintain a condition of No Significant Risk, the integrity of the EPEM must be preserved. Therefore, this AUL is necessary to define the restricted and permitted activities to maintain a condition of No Significant Risk. The AUL is applicable to the entire Property.

AUL Restrictions

The purpose of the AUL is to preserve the integrity of the EPEM because it eliminates or mitigates the exposure pathway and achieves and/or maintains a condition of No Significant Risk.

The following are the activities and uses that will be permitted and prohibited at the Property subject to this AUL.

1. Activities and Uses Consistent with the AUL Opinion. The AUL Opinion provides that a condition of No Significant Risk to health, safety, public welfare, or the environment exists for any foreseeable period of time (pursuant to 310 CMR 40.0000) so long as any of the following activities and uses occur on the Property:

- (i) Any use of the existing building located on the Property, including use of the building as a residence, so long as the vapor barrier and venting system comprising the EPEM are maintained and, if an electric fan is added to the EPEM, such fan operates continuously;
- (ii) Activities and uses which are not identified by this Notice as being inconsistent with maintaining a condition of No Significant Risk;
- (iii) Such other activities or uses which, in the Opinion of an LSP, shall present no greater risk of harm to health, safety, public welfare, or the environment than the activities and uses set forth in this Paragraph; and
- (iv) Such other activities and uses not identified as being Activities and Uses Inconsistent with the AUL.

2. Activities and Uses Inconsistent with the AUL Opinion. Activities and uses which are inconsistent with the objectives of this Notice of Activity and Use Limitation, and which, if implemented at the Property, may result in a significant risk of harm to health, safety, public welfare, or the environment or in a substantial hazard, are as follows:

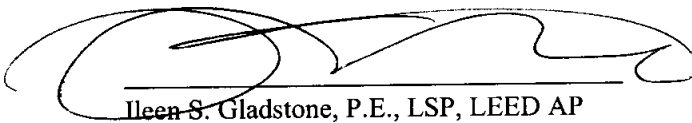
- (i) In the basement, removal or damage of the concrete floor, the overlying epoxy coating, the vapor barrier, the sub-slab venting system, and/or the protective stucco wall finish;
- (ii) In the basement, any activities which may damage and/or compromise the concrete floor, the overlying epoxy coating, the vapor barrier, the sub-slab venting system, and/or the protective stucco wall finish;
- (iii) In the crawlspace, removal or damage of the vapor transmission layer, vapor barrier, geotextile, and/or the peastone layer;
- (iv) In the crawlspace, any activities which may damage and/or compromise the vapor transmission layer, vapor barrier, geotextile, and/or the peastone layer;
- (v) In the event an electric fan is added to the EPEM, removal or damage of such fan;
- (vi) In the event an electric fan is added to the EPEM, shutting down, turning off, or removing electrical power to the fan, or any other activity that would make such fan inoperable;
- (vii) Any activities which may damage and/or compromise the ventilation piping located on the exterior of the building; and
- (viii) Construction of any occupied structure at the Property without the installation of an EPEM and subsequent indoor air sampling to confirm its effectiveness in preventing or mitigating vapor intrusion into the structure.

3. Obligations and Conditions Set Forth in the AUL Opinion. Obligations and/or conditions to be undertaken and/or maintained at the Property to maintain a condition of No Significant Risk as set forth in the AUL Opinion shall include the following:

- (i) In the basement, the integrity of the concrete floor, the overlying epoxy floor coating, the vapor barrier, the sub-slab venting system, and the protective stucco wall finish of the existing building must be preserved and the elements of the EPEM must not be damaged or altered;
- (ii) In the crawlspace, the integrity of the vapor transmission layer, vapor barrier, geotextile, and peastone layer must be preserved and the elements of the EPEM must not be damaged or altered;
- (iii) On the exterior of the building, the integrity of the ventilation piping must be preserved and the elements of the piping must not be damaged or altered;
- (iv) In the event an electric fan is added to the EPEM, power must be maintained to such fan and the fan may not be shut down;
- (v) In the event an electric fan is added to the EPEM, notification must be provided to UniFirst Corporation, together with its successors and assigns and/or its agents, if such fan becomes inoperable, and access must be provided to UniFirst Corporation, together with its successors and assigns and/or its agents, to repair or replace the fan as necessary;
- (vi) Access must be provided, at least annually, to UniFirst Corporation, together with its successors and assigns and/or its agents, to inspect the EPEM for damage and, to the extent necessary to continue the EPEM's effectiveness in preventing or mitigating vapor intrusion into the building, to conduct indoor air testing and/or repair or replace the vapor barrier, venting system, and/or electric fan (to the extent such a fan is added to the EPEM); and
- (vii) Any future construction of an occupied structure at the Property must include the installation of an EPEM to prevent or mitigate vapor intrusion into the structure. The design of the EPEM must be incorporated into the design and construction of the future structure and must be evaluated by an LSP. Follow-up indoor air testing must be conducted to confirm the effectiveness of the EPEM in preventing or mitigating vapor intrusion into the structure.

Summary and Conclusions

This LSP Opinion has been prepared to support the implementation of a Notice of AUL for a release of oil or hazardous materials at the Property. Based on the results of the Risk Characterization and with the implementation of an AUL on the Property, it is GEI's opinion that a condition of No Significant Risk will be maintained at the Property.


ileen S. Gladstone, P.E., LSP, LEED AP

Date: 10/5/09

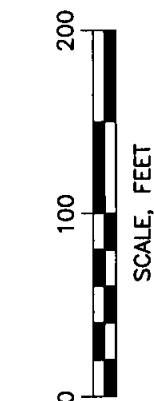


This AUL Opinion is based on the information presented in:

DEP (2007). The Massachusetts Contingency Plan (MCP) 310 CMR 40.0000, effective December 14.

GEI (2008). "Phase II Comprehensive Site Assessment, Method 3 Risk Characterization, and Phase III Remedial Action Plan, 50 Tufts Street, Somerville, Massachusetts," prepared for UniFirst Corporation, July 14.

GEI (2009). "Immediate Response Action Status Report No. 7 and Remedial Monitoring Report No. 10, 50 Tufts Street, Somerville, Massachusetts," prepared for UniFirst Corporation, May 11.

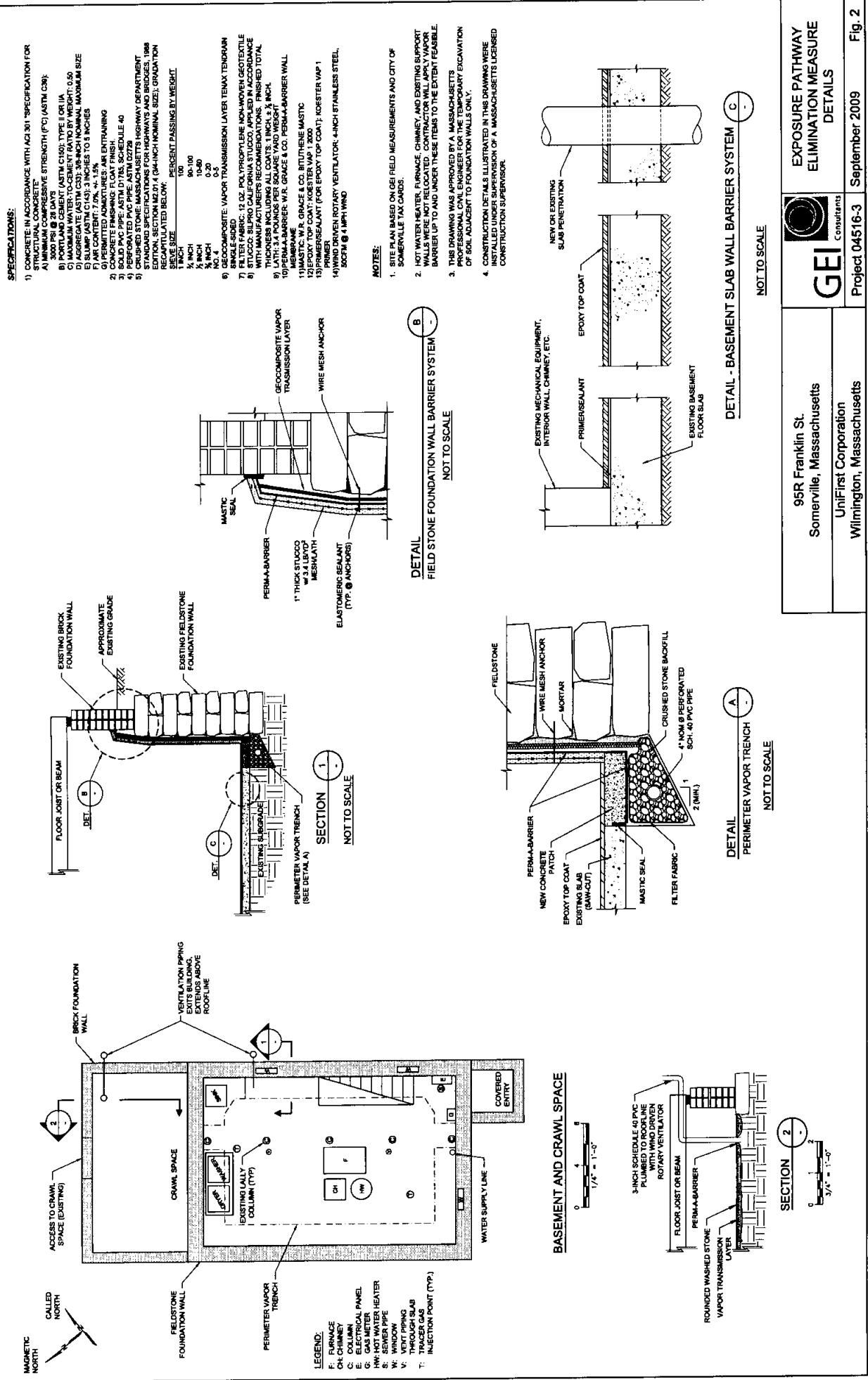


Activity and Use Limitation
50 Tufts Street
Somerville, Massachusetts
UniFirst Corporation
Wilmington, Massachusetts



PORTION OF THE
DISPOSAL SITE SUBJECT
TO THE AUL

Project 04516-3 September 2009 Fig. 1





Consulting June 6, 2024
Engineers and Project 04516-3
Scientists

VIA CERTIFIED MAIL: 9171 9690 0935 0204 6587 90

Jonathan and Anna Feingold
95 Franklin Street
Somerville, MA 02145

Dear Mr. and Ms. Feingold:

**Re: Summary of Indoor Air Sampling and Environmental Conditions
95 Franklin Street
Somerville, Massachusetts**

The purpose of this letter is to summarize the environmental conditions at 95 Franklin Street in Somerville, Massachusetts associated with the release of chlorinated volatile organic compounds (VOCs) to soil and groundwater on the 50 Tufts Street Property.

A release of chlorinated VOCs on the 50 Tufts Street Property was first reported to the Massachusetts Department of Environmental Protection (MassDEP) in 2002. Numerous studies have been conducted relating to the 50 Tufts Street Site, and response actions are currently being conducted under the Massachusetts Contingency Plan (MCP) process. Reports documenting response actions conducted at the Site are available for review at the MassDEP Northeast Regional Office in Woburn, Massachusetts. Records are accessible online at the MassDEP Searchable Sites database (<https://eeaonline.eea.state.ma.us/portal#!/search/wastesite>). Additionally, local public document repositories have been established at the Somerville Central Public Library and at the City of Somerville Clerk's Office. The MassDEP release tracking number (RTN) for the Site is RTN 3-23246. The 95 Franklin Street property is located within the boundaries of the Site (Fig. 1).

The boundaries of the Site were delineated based on the extent of dissolved concentrations of chlorinated VOCs in groundwater. All properties within the Site, including 95 Franklin Street, are serviced by municipal water. Therefore, there is limited potential for direct exposure to contamination in groundwater for human receptors within the Site. Because they are volatile, VOCs have the potential to migrate from subsurface soils or groundwater into the indoor air of buildings. This is known as vapor intrusion.

GEI collected sub-slab soil vapor samples at 95 Franklin Street in April 2007. Based on the sub-slab soil vapor sample testing results, an Active Exposure Pathway Mitigation Measure (AEPMM) was installed. The AEPMM, similar to a radon system, is sub-slab ventilation piping, and an electric-powered fan that captures soil vapor from below the foundation slab and vents the vapors outside above the roofline. GEI inspects and maintains this system and confirms that it continues to operate as designed. GEI will continue to maintain, inspect, and monitor operation of the system as long as it operates.

GEI performed indoor air testing after installation of the AEPMM in June 2007, June 2011, December 2011, February 2012, and May 2013. The results of the sampling are in the attached Table 1. During the May 2013 sampling tetrachloroethylene (PCE) was detected at a concentration of 3.5 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) in the sample collected from the basement, PCE was not detected in the sample collected from the first floor. The laboratory testing did not detect any other VOCs at concentrations above the laboratory reporting limits.

The indoor air sampling results demonstrate that there is a condition of "No Significant Risk" to occupants of the building at 95 Franklin Street. No Significant Risk is a standard established by MassDEP in the Massachusetts Contingency Plan (MCP) to demonstrate that exposure to residual contamination will not result in unacceptable risks to human health. At present, the condition of No Significant Risk is dependent on the continued operation of the AEPMM installed at the property.

Additionally, in September 2009, GEI collected one soil sample from the basement utility area where there was no concrete floor for laboratory testing of chlorinated VOCs. The laboratory testing did not detect PCE or any other chlorinated VOCs at concentrations above the laboratory reporting limits.

On September 2, 2009, a Grant of Remediation Easement and Restrictions was recorded at the Middlesex Registry of Deeds. A copy of this document is enclosed with this letter. The property is subject to certain conditions and restrictions that affect the use of the property, including the basement, namely using the basement as living space.

GEI will continue to maintain, inspect, and monitor operation of the system as long as it operates. As part of routine maintenance, GEI replaces the battery in the radio node affixed to the exterior of the house and monitors the fan. GEI on behalf of UniFirst Corporation would like to schedule a time to access the Property to maintain, inspect, and monitor operation of the system. The inspection should take approximately 15 minutes and can be performed on a day and time that is convenient for you. Please contact me at igladstone@geiconsultants.com or 781-721-4012 to answer any of your questions and to coordinate access.

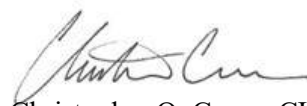
Please contact Ileen Gladstone at igladstone@geiconsultants.com or 781-721-4012 if you have any questions.

Sincerely,

GEI CONSULTANTS, INC.



Ileen S. Gladstone, P.E., LSP, LEED AP
Senior Vice President



Christopher O. Coner, CHMM
Project Manager

MEF/COC/ISG:jam
Enclosures

c: Catherine Malagrida, UniFirst Corporation
MassDEP via Status Report

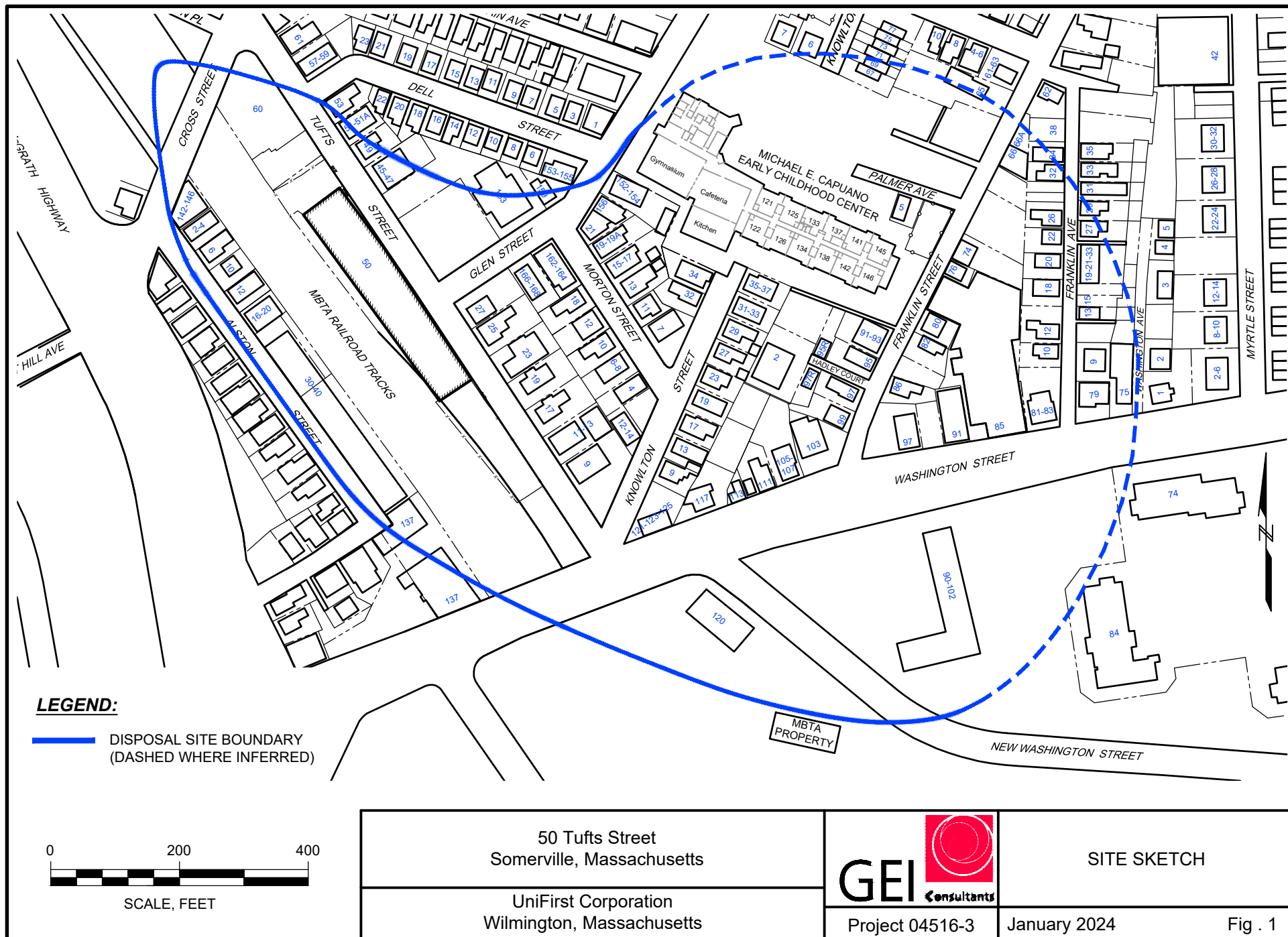


Table 1 - Chemical Testing Results - Post-EPMM Installation Indoor Air
95 Franklin Street
Somerville, Massachusetts

Sample Location: Sample Name: Sample Date: Units:		95 Franklin Street with Active EPMM (SSDS)				95 Franklin Street with Passive EPMM							
		95FRAN-1 6/7/07		95FRAN-B1 6/7/07		95 FRAN-1 1/6/11		95 FRAN-B 1/6/11		95FRAN-1 3/11/11		95FRAN-B 3/11/11	
		µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv	µg/m ³	ppbv
Analyte	Method												
Volatile Organic Compounds (VOCs)	TO-15												
Carbon tetrachloride		0.63 J	0.10 J	0.69 J	0.11 J	NT	NT	NT	NT	NT	NT	NT	NT
Tetrachloroethylene (PCE)		8.8	1.30	8.1	1.2	14	2.1	29	4.3	22	3.2	43	6.4
Trichloroethylene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	0.91 J	0.17 J	0.86 J	0.11 J	1.6	0.30

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
2. µg/m³ = micrograms per cubic meter.
3. ppbv = parts per billion by volume.
4. NT = Not Tested.
5. EPMM = Exposure Pathway Mitigation Measure.
6. SSDS = Sub-Slab Depressurization System
7. The samples collected after June 2007 were collected over a 24-hour period ending on the date shown.
8. **No pre-EPMM indoor air samples were collected. The EPMM was installed based on sub-slab soil vapor testing results.**
9. A fan was installed on the EPMM on March 25, 2011.

Qualifying Note:

- J The reported result is below the laboratory reporting limit and is estimated.

Table 1 - Chemical Testing Results - Post-EPMM Installation Indoor Air
95 Franklin Street
Somerville, Massachusetts

Sample Location:		95 Franklin Street with Active EPMM (SSDS)															
Sample Name:		95FRAN-1		95FRAN-B1		95FRAN-1		95FRAN-B		95FRAN-1		95FRAN-B		95FRAN-1		95FRAN-B	
Sample Date:		6/24/11		6/24/11		12/13/11		12/13/11		2/3/12		2/3/12		5/17/13		5/17/13	
Units:		$\mu\text{g}/\text{m}^3$		ppbv		$\mu\text{g}/\text{m}^3$		ppbv		$\mu\text{g}/\text{m}^3$		ppbv		$\mu\text{g}/\text{m}^3$		ppbv	
Analyte	Method																
Volatile Organic Compounds (VOCs)	TO-15																
Carbon tetrachloride		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Tetrachloroethylene (PCE)		1.5	0.2	2.7	0.4	< 1.4	< 0.20	< 1.4	< 0.20	2.2	0.3	< 1.4	< 0.20	< 1.4	< 0.20	3.5	0.52
Trichloroethylene (TCE)		< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20	< 1.1	< 0.20

General Notes:

1. Analytes detected in at least one sample are reported here. For a complete list of analytes see the attached laboratory data sheets.
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GRANT OF REMEDIATION EASEMENT AND RESTRICTIONS

This Grant of Remediation Easement and Restrictions (the "Agreement") is entered into as of August 21, 2009 (the "Effective Date"), by and among UniFirst Corporation ("UniFirst") and Elmo C. Maynard (the "Owner") (collectively, the "Parties").

INTENT OF THE PARTIES

The Parties are entering this Agreement for the purposes, and in consideration of the mutual covenants and undertakings, set forth herein. The Parties acknowledge and agree that they are entering this Agreement for good and valuable consideration, the receipt of which is hereby acknowledged and the legal sufficiency of which is hereby conclusively established.

Owner is the owner in fee of certain real property located at 95 Franklin Street, Somerville, Massachusetts (the "Property"), more particularly described in Schedule A attached hereto and incorporated herein;

UniFirst has voluntarily agreed to make certain improvements to the building located on the Property, at no expense to Owner, to inhibit vapors from intruding through the foundation of the building (the "Exposure Pathway Elimination Measure" or "EPEM").

The Parties agree that it is in their mutual interest that UniFirst install such an Exposure Pathway Elimination Measure.

As more particularly set forth below, Owner therefore has agreed to: (i) grant UniFirst and its designees access to the Property to install, operate, monitor and maintain the EPEM; and (ii) exercise reasonable care not to cause damage to the EPEM.

I. Remediation Easement

Owner hereby grants to UniFirst and its designees the right and easement to enter upon the Property for the purpose of installing an EPEM to inhibit vapors from intruding through the foundation of the building located on the Property, and an easement for taking all actions necessary or appropriate for the operation, maintenance and monitoring of such EPEM once installed. The rights, privileges, benefits, and burdens as established by these easements shall run with the land for the mutual benefit of the Owner and UniFirst. The easements herein granted shall be perpetual.

Owner Initials E.C.M

Page 1 of 6

Goodwin Procter LLP
53 Exchange Place
Boston, Massachusetts 02109Attn: Nate Brodeur

Owner expressly reserves, and does not relinquish or abdicate her rights to any claims she may have against UniFirst, its directors, officers, or agents for impacts to the Owner, occupants or her Property caused by migration of hazardous materials from the 50 Tufts Street property to her Property, and for any damages she or her successors in interest may sustain as a result of the physical work conducted by UniFirst, its agents, assigns, and successors; and UniFirst agrees to defend, indemnify and hold harmless the Owner, her successors in interest against any claims by any agents or assigns, designees and successors of UniFirst arising from, or attributable to the work done by or for UniFirst on the property.

Neither the granting of the above-described easements nor any term or provision hereof shall be construed as, or constitute evidence of, an admission of any liability or wrongdoing by UniFirst or Owner.

II. Installation of the EPEM

Except as otherwise provided in this Agreement, UniFirst shall bear all costs associated with installation, operation, monitoring, and maintenance of the EPEM.

Owner hereby acknowledges that Owner has reviewed with the scientists and engineers from UniFirst's environmental consultants, GEI Consultants Inc. ("GEI"), the conceptual design of the EPEM, and has approved the conceptual design and work associated with the installation of the EPEM. Owner hereby acknowledges that the final design of the EPEM may be modified as the installation work progresses and the EPEM is monitored. UniFirst agrees that it shall keep Owner apprised of the progress of the work and results of the monitoring.

Owner agrees that UniFirst and/or its designees may act as an Authorized Agent of the Owner for the purpose of obtaining any and all permits required to install and maintain the EPEM, including but not limited to a permit to build, alter, or repair building systems and/or components. Owner similarly agrees that UniFirst and/or its designee may sign preliminary and final construction cost affidavits for the City of Somerville Inspectional Services Division to the extent required to obtain permits required to install and maintain the EPEM. To the extent necessary to obtain any permit required to install and maintain the EPEM, Owner shall: (i) sign a "Certificate of Good Standing" for inclusion in the application for such permit; and/or (ii) resolve any past due accounts with the City of Somerville Treasury Department.

Owner acknowledges that UniFirst will not upgrade or replace building systems or components (for example, plumbing or heating systems, air conditioning units, or water heaters) that do not meet the current Massachusetts Building Code unless specifically directed and required by the City of Somerville Inspectional Services Division. Where compliance with the Massachusetts Building Code is impractical because of construction constraints or regulatory conflicts, Owner agrees to accept Compliance Alternatives, as defined in 780 CMR 3406.

Owner acknowledges that UniFirst and/or its designees may be required to temporarily interrupt electrical, water, sewer, natural gas, telephone, and/or heat in order to install and maintain the EPEM. To the extent such interruptions are necessary; UniFirst and/or its designees will schedule service interruptions at a time, and for a duration, that is convenient for the Owner and/or the Owner's tenants.

Owner acknowledges that, prior to the installation of the EPDM, UniFirst and/or its designee may temporarily remove any items stored, and appliances (washer, dryer, dehumidifier) installed, in the basement of the building on the Property. If removed, the items shall be stored at a secure off-site location and shall be returned, and reinstalled to the extent necessary, following installation of the EPDM. UniFirst and/or its designee will provide the Owner with access to their stored items with forty-eight (48) hours notice.

Owner further acknowledges that installation and maintenance of the EPDM may require modifications to the building envelope, foundation, utility services and systems, fenestration, and/or means of egress to the basement and crawlspace. Owner hereby gives UniFirst and its designees permission to make such changes to the building as are reasonably necessary to install and/or maintain the EPDM.

As part of the EPDM installation, and subject to approval by the City of Somerville, UniFirst or its designee will install a secondary means of egress to the basement in the form of a bulkhead. Due to the limited available vertical and lateral clearance, the bulkhead opening is expected to be smaller than standard entryway dimensions. The bulkhead floor and walls will be constructed of 5,000 psi concrete, stairs constructed of pressure treated wood, and the cover comprised of a Bilco standard steel sided enclosure. The bulkhead will not have a roof structure attached to the building envelope. A weatherproof and lockable door will be installed in the foundation opening.

UniFirst and/or its designee will manage and dispose of all construction debris generated in conjunction with the installation and maintenance of the EPDM, including without limitation any waste materials generated in conjunction with interior demolition work. Notwithstanding the preceding sentence, if UniFirst and/or its designee shall encounter hazardous building materials not related to the 50 Tufts Street Site (e.g., asbestos insulation or building materials) during installation and maintenance of the EPDM, UniFirst shall bear the costs of removing and disposing of such hazardous building materials in accordance with applicable regulations, but Owner shall sign any waste manifests required for such disposal.

III. Performance of the EPDM

The objectives of the EPDM are: (i) to achieve a condition of No Significant Risk, as that term is defined in M.G.L. c. 21E and its implementing regulations at 310 CMR 40.0000 et seq., the Massachusetts Contingency Plan ("MCP"), as of the Effective Date; and (ii) to the extent feasible, eliminate or mitigate the transport of measurable concentrations of constituents of concern into living space. UniFirst agrees to make all best efforts to achieve a condition of No Significant Risk for the Property, and to the extent feasible, eliminate, or mitigate the transport of measurable concentrations of constituents of concern into living space.

Upon completion of installation of the EPDM, UniFirst and/or its designees shall conduct sufficient monitoring, in the reasonable discretion of GEI, to confirm that the EPDM is functioning as designed. UniFirst and/or its designees shall, in a reasonably timely manner, make modifications to the EPDM if the monitoring indicates that such modifications are reasonably necessary to achieve a condition of No Significant Risk.

In accordance with the MCP, UniFirst shall submit to the Massachusetts Department of Environmental Protection a Response Action Outcome ("RAO") Statement, either separately for the Property or as part of a site-wide submission. Owner acknowledges that an Activity and Use Limitation ("AUL") may need to be placed on the Property in support of the RAO Statement, and hereby agrees to sign, and authorize recordation and implementation of, a Notice of Activity and Use Limitation for the Property prepared by GEI. In pertinent part, the purpose of the AUL will be to further memorialize the undertakings by UniFirst and Owner, on behalf of themselves and their executors, heirs, successors and assigns, concerning the installation, operation, maintenance, monitoring, and preservation of the EPDM. Such AUL would include, for example, provisions relating to maintaining the integrity of the EPDM, and access to and use of the basement where the EPDM has been installed.

IV. Restricted Uses of Property

The restrictions conveyed to UniFirst in this Section IV consist of covenants on the part of the Owner to do or refrain from doing the various acts set forth below and to allow UniFirst and its designees to install, operate, maintain, and monitor the EPDM without undue interference. It is hereby acknowledged that these covenants shall constitute a servitude upon the land and run with the land.

Owner hereby agrees and covenants that Owner shall not, without the prior written consent of UniFirst alter or compromise the integrity of any components of the EPDM, including, but not limited to, foundation components and coatings, wall components and coatings, ventilation piping, and EPDM labels. Owner further agrees and covenants that Owner shall not, nor shall they permit their tenants or subtenants to, change the existing use of the basement space for storage, housing of utilities, and building and utility maintenance. The Owner shall not, nor shall they permit their tenants or subtenants to, use the basement as living space.

V. Enforcement of the Restrictions

UniFirst and/or its designees may make inspections of the building and the EPDM at reasonable times and upon reasonable notice to Owner, to assure compliance by Owner with all of the covenants and restrictions herein. In the event that UniFirst becomes aware of any event or circumstance of non-compliance with the terms and conditions herein set forth, UniFirst shall give notice to Owner of such event or circumstance of non-compliance and demand corrective action sufficient to abate such event or circumstance of non-compliance and restore the Property to its previous condition.

Failure by Owner to discontinue, abate, or take such other corrective action as may be demanded by UniFirst within a reasonable time after receipt of notice and reasonable opportunity to take corrective action shall entitle, but not obligate, UniFirst to: (i) take corrective action itself to abate such event or circumstance of non-compliance; and/or (ii) bring an action in a court of competent jurisdiction to enforce the terms of this Agreement and to recover any damages from such non-compliance. If UniFirst chooses to take corrective action, Owner shall reimburse UniFirst for all reasonable costs incurred by UniFirst in investigating the non-compliance and securing its correction. If UniFirst chooses to bring an action in a court of competent jurisdiction to enforce the terms of this Agreement and recovers any damages stemming from Owner's non-

compliance with this Agreement, such damages, when recovered, shall be applied by UniFirst to corrective action on the Property, if necessary. If a court determines that Owner has failed to comply with this Agreement, Owner shall reimburse UniFirst for any reasonable costs of enforcement, including court costs and reasonable attorneys' and consultants' fees, in addition to any other payments ordered by such court. The Parties specifically acknowledge that events and circumstances of non-compliance constitute immediate and irreparable injury, loss, and damage and accordingly entitle UniFirst to such equitable relief, including but not limited to injunctive relief, as the court deems just. The remedies described herein are in addition to, and not in limitation of, any other remedies available to UniFirst at law, in equity, or through administrative proceedings.

No delay or omission by UniFirst in the exercise of any right or remedy upon any breach by Owner shall impair UniFirst's rights or remedies or be construed as a waiver.

VI. Miscellaneous Provisions

A. UniFirst shall be entitled to record this Agreement, or to record a notice making reference to the existence of this Agreement, in the Middlesex County Registry of Deeds. In any deed conveying an interest in all or part of the Property, Owner shall make reference to the easement and restrictions described herein and shall indicate that said easement and restrictions are binding upon all successors in interest in the Property in perpetuity. Owner shall also notify UniFirst of the name(s) and address(es) of Owner's successor(s) in interest.

B. The term "Owner" shall include the heirs, executors, administrators, successors and assigns of the original Owner, Elmo C. Maynard. The term "UniFirst" shall include the successors and assigns of UniFirst Corporation.

C. This Agreement constitutes the complete agreement between the Parties and supersedes all prior understandings, negotiations, representations, and agreements, if any, between UniFirst and Owner.

D. Each Party to this Agreement represents and warrants that it, and the person executing this Agreement on such Party's behalf, is fully authorized to execute this Agreement and to bind such Party to the terms and obligations set forth in this Agreement.

E. This Agreement shall be interpreted in accordance with, and the rights of the Parties governed by, Massachusetts law, without regard to choice of law principles. The Parties agree that all actions arising out of this Agreement shall only be brought in a state or federal court in the Commonwealth of Massachusetts, and each Party consents to venue in and jurisdiction of such court.

F. The Parties do not intend this Agreement to be construed against any Party merely because such Party or such Party's counsel drafted this Agreement or any portion hereof.

G. This Agreement is entered into by the Parties voluntarily. Each Party has had the opportunity to consult counsel in the execution of this Agreement, and each fully understands and acknowledges each limitation, restriction, and obligation which may be imposed by one against another pursuant to the terms and conditions of this Agreement. There have been no

statements, representations, promises, undertakings, or inducements made to a Party by any other Party hereto, except as expressly set forth in this Agreement, that have induced any Party or Parties to enter into and/or execute this Agreement.

H. Any modification, amendment, or waiver of this Agreement (or portion of this Agreement) must be made in writing and signed by the Party to be charged with obligations arising from such modification, amendment, or waiver.

I. Invalidation of any provision hereof shall not affect any other provision of this Agreement.

IN WITNESS WHEREOF, the Parties have executed this Grant of Remediation Easement and Restrictions as of the date and year first above written.

UNIFIRST CORPORATION

OWNER

BY, John R. Badley
Vice President
UniFirst Corporation

BY, Elmo C. Maynard
Elmo C. Maynard

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF

On this 21st day of August, 2009, before me, the undersigned notary public, personally appeared ELMO C. MAYNARD, and proved to me through satisfactory evidence of identification, which was STATE OF MASSACHUSETTS ID CARD, to be the person whose name is signed on the preceding or attached document and acknowledged to me that she signed it voluntarily for its stated purpose.

William J. [Signature] (official signature and seal of notary)
My commission expires: JULY 8, 2016

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF

On this 24 day of August, 2009, before me, the undersigned notary public, personally appeared John R. Badley, as representative for UniFirst Corporation, proved to me through satisfactory evidence of identification, which was D.B., to be the person whose name is signed on the preceding or attached document and acknowledged to me that he/she signed it voluntarily for its stated purpose.

Malcolm R. White (official signature and seal of notary)
My commission expires: 1-9-12

Appendix C Kleinfelder Soil, GLX Soil Precharacterization Data, and Contained-In Determinations



Tables

Analyze	Start Date	End Date	WS-1	WS-2	WS-3	WS-4	WS-5	WS-6	WS-7	WS-8	WS-9	WS-10	WS-11	WS-12	WS-13	WS-14	WS-15	WS-16	WS-17	WS-18	WS-19	WS-20	WS-21	WS-22	WS-23	WS-24	WS-25	WS-26	WS-27	WS-28	WS-29	WS-30	WS-31	WS-32	WS-33	WS-34	WS-35	WS-36	WS-37	WS-38	WS-39	WS-40	WS-41	WS-42	WS-43	WS-44	WS-45	WS-46	WS-47	WS-48	WS-49	WS-50	WS-51	WS-52	WS-53	WS-54	WS-55	WS-56	WS-57	WS-58	WS-59	WS-60	WS-61	WS-62	WS-63	WS-64	WS-65	WS-66	WS-67	WS-68	WS-69	WS-70	WS-71	WS-72	WS-73	WS-74	WS-75	WS-76	WS-77	WS-78	WS-79	WS-80	WS-81	WS-82	WS-83	WS-84	WS-85	WS-86	WS-87	WS-88	WS-89	WS-90	WS-91	WS-92	WS-93	WS-94	WS-95	WS-96	WS-97	WS-98	WS-99	WS-100	WS-101	WS-102	WS-103	WS-104	WS-105	WS-106	WS-107	WS-108	WS-109	WS-110	WS-111	WS-112	WS-113	WS-114	WS-115	WS-116	WS-117	WS-118	WS-119	WS-120	WS-121	WS-122	WS-123	WS-124	WS-125	WS-126	WS-127	WS-128	WS-129	WS-130	WS-131	WS-132	WS-133	WS-134	WS-135	WS-136	WS-137	WS-138	WS-139	WS-140	WS-141	WS-142	WS-143	WS-144	WS-145	WS-146	WS-147	WS-148	WS-149	WS-150	WS-151	WS-152	WS-153	WS-154	WS-155	WS-156	WS-157	WS-158	WS-159	WS-160	WS-161	WS-162	WS-163	WS-164	WS-165	WS-166	WS-167	WS-168	WS-169	WS-170	WS-171	WS-172	WS-173	WS-174	WS-175	WS-176	WS-177	WS-178	WS-179	WS-180	WS-181	WS-182	WS-183	WS-184	WS-185	WS-186	WS-187	WS-188	WS-189	WS-190	WS-191	WS-192	WS-193	WS-194	WS-195	WS-196	WS-197	WS-198	WS-199	WS-200	WS-201	WS-202	WS-203	WS-204	WS-205	WS-206	WS-207	WS-208	WS-209	WS-210	WS-211	WS-212	WS-213	WS-214	WS-215	WS-216	WS-217	WS-218	WS-219	WS-220	WS-221	WS-222	WS-223	WS-224	WS-225	WS-226	WS-227	WS-228	WS-229	WS-230	WS-231	WS-232	WS-233	WS-234	WS-235	WS-236	WS-237	WS-238	WS-239	WS-240	WS-241	WS-242	WS-243	WS-244	WS-245	WS-246	WS-247	WS-248	WS-249	WS-250	WS-251	WS-252	WS-253	WS-254	WS-255	WS-256	WS-257	WS-258	WS-259	WS-260	WS-261	WS-262	WS-263	WS-264	WS-265	WS-266	WS-267	WS-268	WS-269	WS-270	WS-271	WS-272	WS-273	WS-274	WS-275	WS-276	WS-277	WS-278	WS-279	WS-280	WS-281	WS-282	WS-283	WS-284	WS-285	WS-286	WS-287	WS-288	WS-289	WS-290	WS-291	WS-292	WS-293	WS-294	WS-295	WS-296	WS-297	WS-298	WS-299	WS-300	WS-301	WS-302	WS-303	WS-304	WS-305	WS-306	WS-307	WS-308	WS-309	WS-310	WS-311	WS-312	WS-313	WS-314	WS-315	WS-316	WS-317	WS-318	WS-319	WS-320	WS-321	WS-322	WS-323	WS-324	WS-325	WS-326	WS-327	WS-328	WS-329	WS-330	WS-331	WS-332	WS-333	WS-334	WS-335	WS-336	WS-337	WS-338	WS-339	WS-340	WS-341	WS-342	WS-343	WS-344	WS-345	WS-346	WS-347	WS-348	WS-349	WS-350	WS-351	WS-352	WS-353	WS-354	WS-355	WS-356	WS-357	WS-358	WS-359	WS-360	WS-361	WS-362	WS-363	WS-364	WS-365	WS-366	WS-367	WS-368	WS-369	WS-370	WS-371	WS-372	WS-373	WS-374	WS-375	WS-376	WS-377	WS-378	WS-379	WS-380	WS-381	WS-382	WS-383	WS-384	WS-385	WS-386	WS-387	WS-388	WS-389	WS-390	WS-391	WS-392	WS-393	WS-394	WS-395	WS-396	WS-397	WS-398	WS-399	WS-400	WS-401	WS-402	WS-403	WS-404	WS-405	WS-406	WS-407	WS-408	WS-409	WS-410	WS-411	WS-412	WS-413	WS-414	WS-415	WS-416	WS-417	WS-418	WS-419	WS-420	WS-421	WS-422	WS-423	WS-424	WS-425	WS-426	WS-427	WS-428	WS-429	WS-430	WS-431	WS-432	WS-433	WS-434	WS-435	WS-436	WS-437	WS-438	WS-439	WS-440	WS-441	WS-442	WS-443	WS-444	WS-445	WS-446	WS-447	WS-448	WS-449	WS-450	WS-451	WS-452	WS-453	WS-454	WS-455	WS-456	WS-457	WS-458	WS-459	WS-460	WS-461	WS-462	WS-463	WS-464	WS-465	WS-466	WS-467	WS-468	WS-469	WS-470	WS-471	WS-472	WS-473	WS-474	WS-475	WS-476	WS-477	WS-478	WS-479	WS-480	WS-481	WS-482	WS-483	WS-484	WS-485	WS-486	WS-487	WS-488	WS-489	WS-490	WS-491	WS-492	WS-493	WS-494	WS-495	WS-496	WS-497	WS-498	WS-499	WS-500	WS-501	WS-502	WS-503	WS-504	WS-505	WS-506	WS-507	WS-508	WS-509	WS-510	WS-511	WS-512	WS-513	WS-514	WS-515	WS-516	WS-517	WS-518	WS-519	WS-520	WS-521	WS-522	WS-523	WS-524	WS-525	WS-526	WS-527	WS-528	WS-529	WS-530	WS-531	WS-532	WS-533	WS-534	WS-535	WS-536	WS-537	WS-538	WS-539	WS-540	WS-541	WS-542	WS-543	WS-544	WS-545	WS-546	WS-547	WS-548	WS-549	WS-550	WS-551	WS-552	WS-553	WS-554	WS-555	WS-556	WS-557	WS-558	WS-559	WS-560	WS-561	WS-562	WS-563	WS-564	WS-565	WS-566	WS-567	WS-568	WS-569	WS-570	WS-571	WS-572	WS-573	WS-574	WS-575	WS-576	WS-577	WS-578	WS-579	WS-580	WS-581	WS-582	WS-583	WS-584	WS-585	WS-586	WS-587	WS-588	WS-589	WS-590	WS-591	WS-592	WS-593	WS-594	WS-595	WS-596	WS-597	WS-598	WS-599	WS-600	WS-601	WS-602	WS-603	WS-604	WS-605	WS-606	WS-607	WS-608	WS-609	WS-610	WS-611	WS-612	WS-613	WS-614	WS-615	WS-616	WS-617	WS-618	WS-619	WS-620	WS-621	WS-622	WS-623	WS-624	WS-625	WS-626	WS-627	WS-628	WS-629	WS-630	WS-631	WS-632	WS-633	WS-634	WS-635	WS-636	WS-637	WS-638	WS-639	WS-640	WS-641	WS-642	WS-643	WS-644	WS-645	WS-646	WS-647	WS-648	WS-649	WS-650	WS-651	WS-652	WS-653	WS-654	WS-655	WS-656	WS-657	WS-658	WS-659	WS-660	WS-661	WS-662	WS-663	WS-664	WS-665	WS-666	WS-667	WS-668	WS-669	WS-670	WS-671	WS-672	WS-673	WS-674	WS-675	WS-676	WS-677	WS-678	WS-679	WS-680	WS-681	WS-682	WS-683	WS-684	WS-685	WS-686	WS-687	WS-688	WS-689	WS-690	WS-691	WS-692	WS-693	WS-694	WS-695	WS-696	WS-697	WS-698	WS-699	WS-700	WS-701	WS-702	WS-703	WS-704	WS-705	WS-706	WS-707	WS-708	WS-709	WS-710	WS-711	WS-712	WS-713	WS-714	WS-715	WS-716	WS-717	WS-718	WS-719	WS-720	WS-721	WS-722	WS-723	WS-724	WS-725	WS-726	WS-727	WS-728	WS-729	WS-730	WS-731	WS-732	WS-733	WS-734	WS-735	WS-736	WS-737	WS-738	WS-739	WS-740	WS-741	WS-742	WS-743	WS-744	WS-745	WS-746	WS-747	WS-748	WS-749	WS-750	WS-751	WS-752	WS-753	WS-754	WS-755	WS-756	WS-757	WS-758	WS-759	WS-760	WS-761	WS-762	WS-763	WS-764	WS-765	WS-766	WS-767	WS-768	WS-769	WS-770	WS-771	WS-772	WS-773	WS-774	WS-775	WS-776	WS-777	WS-778	WS-779	WS-780	WS-781	WS-782	WS-783	WS-784	WS-785	WS-786	WS-787	WS-788	WS-789	WS-790	WS-791	WS-792	WS-793	WS-794	WS-795	WS-796	WS-797	WS-798	WS-799	WS-800	WS-801	WS-802	WS-803	WS-804	WS-805	WS-806	WS-807	WS-808	WS-809	WS-810	WS-811	WS-812	WS-813	WS-814	WS-815	WS-816	WS-817	WS-818	WS-819	WS-820	WS-821	WS-822	WS-823	WS-824	WS-825	WS-826	WS-827	WS-828	WS-829	WS-830	WS-831	WS-832	WS-833	WS-834	WS-835	WS-836	WS-837	WS-838	WS-839	WS-840	WS-841	WS-842	WS-843	WS-844	WS-845	WS-846	WS-847	WS-848	WS-849	WS-850	WS-851	WS-852	WS-853	WS-854	WS-855	WS-856	WS-857	WS-858	WS-859	WS-860	WS-861	WS-862	WS-863	WS-864	WS-865	WS-866	WS-867	WS-868	WS-869	WS-870	WS-871	WS-872	WS-873	WS-874	WS-875	WS-876	WS-877	WS-878	WS-879	WS-880	WS-881	WS-882	WS-883	WS-884	WS-885	WS-886	WS-887	WS-888	WS-889	WS-890	WS-891	WS-892	WS-893	WS-894	WS-895	WS-896	WS-897	WS-898	WS-899	WS-900	WS-901	WS-902	WS-903	WS-904	WS-905	WS-906	WS-907	WS-908	WS-909	WS-910	WS-911	WS-912	WS-913	WS-914	WS-915	WS-916	WS-917	WS-918	WS-919	WS-920	WS-921	WS-922	WS-923	WS-924	WS-925	WS-926	WS-927	WS-928	WS-929	WS-930	WS-931	WS-932	WS-933	WS-934	WS-935	WS-936	WS-937	WS-938	WS-939	WS-940	WS-941	WS-942	WS-943	WS-944	WS-945	WS-946	WS-947	WS-948	WS-949	WS-950	WS-951	WS-952	WS-953	WS-954	WS-955	WS-956	WS-957	WS-958
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[illegible]

Notes:

Bold - Analyte detected above laboratory detection limits

Bold and Shaded (Blue) - Analyte detected above RCS-1

Underlined - Analyte detected above RCS-2
 Bold and Gray: RL > RCS-1

~ No standard promulgated

NT - Not tested

Summary of Phase 1 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							GLX-TPW-306-1		GLX-TPW-307-1.5		GLX-TPW-307-1.5		GLX-TPW-201-1.5		GLX-TPW-201-7		GLX-TPW-308-0.5		
SAMPLING DATE							5/23/2019		5/23/2019		5/23/2019		5/23/2019		5/23/2019		5/23/2019		
LAB SAMPLE ID							L1921946-01		L1921946-04		L1921946-04 R1		L1921946-07		L1921946-13		L1921946-16		
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		
SAMPLE DEPTH (ft.)																			
		CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
General Chemistry																			
Solids, Total		NONE					%	93.3		87.9		-	-	86.8		81.1		94.2	
MCP Volatile Organics by EPA 5035																			
	Methylene chloride	75-09-2			0.1	NS	mg/kg	0.0043	U	0.0064	U	0.0058	U	0.3	U	0.0043	U	0.21	U
	1,1-Dichloroethane	75-34-3			0.4	0.4	mg/kg	0.00086	U	0.0013	U	0.0012	U	0.059	U	0.00085	U	0.042	U
	Chloroform	67-66-3			0.2	0.2	mg/kg	0.0013	U	0.0019	U	0.0018	U	0.089	U	0.0013	U	0.063	U
	Carbon tetrachloride	56-23-5			5	5	mg/kg	0.00086	U	0.0013	U	0.0012	U	0.059	U	0.00085	U	0.042	U
	1,2-Dichloropropane	78-87-5			0.1	0.1	mg/kg	0.00086	U	0.0013	U	0.0012	U	0.059	U	0.00085	U	0.042	U
	Dibromochloromethane	124-48-1			0.005	0.005	mg/kg	0.00086	U	0.0013	U	0.0012	U	0.059	U	0.00085	U	0.042	U
	1,1,2-Trichloroethane	79-00-5			0.1	0.1	mg/kg	0.00086	U	0.0013	U	0.0012	U	0.059	U	0.00085	U	0.042	U
	Tetrachloroethene	127-18-4			1	1	mg/kg	0.0006		0.00064	U	0.00058	U	0.03	U	0.0066		1.1	
	Chlorobenzene	108-90-7			1	1	mg/kg	0.00043	U	0.00064	U	0.00058	U	0.03	U	0.00043	U	0.021	U
	Trichlorofluoromethane	75-69-4			1000	NS	mg/kg	0.0034	U	0.0051	U	0.0047	U	0.24	U	0.0034	U	0.17	U
	1,2-Dichloroethane	107-06-2			0.1	0.1	mg/kg	0.00086	U	0.0013	U	0.0012	U	0.059	U	0.00085	U	0.042	U
	1,1,1-Trichloroethane	71-55-6			30	30	mg/kg	0.00043	U	0.0009		0.00058	U	0.03	U	0.002		0.021	U
	Bromodichloromethane	75-27-4			0.1	0.1	mg/kg	0.00043	U	0.00064	U	0.00058	U	0.03	U	0.00043	U	0.021	U
	trans-1,3-Dichloropropene	10061-02-6			0.01	NS	mg/kg	0.00086	U	0.0013	NS	0.0012	U	0.059	U	0.00085	U	0.042	U
	cis-1,3-Dichloropropene	10061-01-5			0.01	NS	mg/kg	0.00043	U	0.00064	U	0.00058	U	0.03	U	0.00043	U	0.021	U
	1,3-Dichloropropene, Total	542-75-6			0.01	0.01	mg/kg	0.00043	U	0.00064	U	0.00058	U	0.03	U	0.00043	U	0.021	U
	1,1-Dichloropropene	563-58-6				NS	mg/kg	0.00043	U	0.00064	U	0.00058	U	0.03	U	0.00043	U	0.021	U
	Bromoform	75-25-2			0.1	0.1	mg/kg	0.0034	U	0.0051	U	0.0047	U	0.24	U	0.0034	U	0.17	U
	1,1,2,2-Tetrachloroethane	79-34-5			0.005	0.005	mg/kg	0.00043	U	0.00064	U	0.00058	U	0.03	U	0.00043	U	0.021	U
	Benzene	71-43-2			2	2	mg/kg	0.00043	U	0.00064	U	0.00058	U	0.03	U	0.00043	U	0.021	U
	Toluene	108-88-3			30	30	mg/kg	0.00086	U	0.0013	U	0.0012	U	0.059	U	0.00085	U	0.042	U
	Ethylbenzene	100-41-4			40	40	mg/kg	0.00086	U	0.0013	U	0.0012	U	0.059	U	0.00085	U	0.042	U
	Chloromethane	74-87-3			100	NS	mg/kg	0.0034	U	0.0051	U	0.0047	U	0.24	U	0.0034	U	0.17	U
	Bromomethane	74-83-9			0.5	0.5	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	Vinyl chloride	75-01-4			0.7	0.7	mg/kg	0.00086	U	0.0013	U	0.0012	U	0.059	U	0.00085	U	0.042	U
	Chloroethane	75-00-3			100	NS	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	1,1-Dichloroethene	75-35-4			3	3	mg/kg	0.00086	U	0.0013	U	0.0012	U	0.059	U	0.00085	U	0.042	U
	trans-1,2-Dichloroethene	156-60-5			1	1	mg/kg	0.0013	U	0.0019	U	0.0018	U	0.089	U	0.0013	U	0.063	U
	Trichloroethene	79-01-6			0.3	0.3	mg/kg	0.00043	U	0.00064	U	0.00058	U	0.03	U	0.0007		0.03	
	1,2-Dichlorobenzene	95-50-1			9	9	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	1,3-Dichlorobenzene	541-73-1			3	3	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	1,4-Dichlorobenzene	106-46-7			0.7	0.7	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	Methyl tert butyl ether	1634-04-4			0.1	0.1	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	p/m-Xylene	179601-23-1			100	100	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	o-Xylene	95-47-6			100	100	mg/kg	0.00086	U	0.0013	U	0.0012	U	0.059	U	0.00085	U	0.042	U
	Xylenes, Total	1330-20-7			100	100	mg/kg	0.00086	U	0.0013	U	0.0012	U	0.059	U	0.00085	U	0.042	U
	cis-1,2-Dichloroethene	156-59-2			0.1	0.1	mg/kg	0.00086	U	0.0013	U	0.0012	U	0.059	U	0.00085	U	0.042	U
	1,2-Dichloroethene, Total	540-59-0				NS	mg/kg	0.00086	U	0.0013	U	0.0012	U	0.059	U	0.00085	U	0.042	U
	Dibromomethane	74-95-3			500	NS	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	1,2,3-Trichloropropane	96-18-4			100	NS	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	Styrene	100-42-5			3	3	mg/kg	0.00086	U	0.0013	U	0.0012	U	0.059	U	0.00085	U	0.042	U
	Dichlorodifluoromethane	75-71-8			1000	NS	mg/kg	0.0086	U	0.013	U	0.012	U	0.59	U	0.0085	U	0.42	U
	Acetone	67-64-1			6	6	mg/kg	0.23		0.052		0.032		0.59	U	0.049		0.42	U
	Carbon disulfide	75-15-0			100	NS	mg/kg	0.0086	U	0.013	U	0.012	U	0.59	U	0.0085	U	0.42	U
	Methyl ethyl ketone	78-93-3			4	4	mg/kg	0.0086	U	0.013	U	0.012	U	0.59	U	0.0085	U	0.42	U
	Methyl isobutyl ketone	108-10-1			0.4	0.4	mg/kg	0.0086	U	0.013	U	0.012	U	0.59	U	0.0085	U	0.42	U
	2-Hexanone	591-78-6			100	NS	mg/kg	0.0086	U	0.013	U	0.012	U	0.59	U	0.0085	U	0.42	U
	Bromochloromethane	74-97-5				NS	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	Tetrahydrofuran	109-99-9			500	NS	mg/kg	0.0034	U	0.0051	U	0.0047	U	0.24	U	0.0034	U	0.17	U
	2,2-Dichloropropane	594-20-7				NS	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	1,2-Dibromoethane	106-93-4			0.1	NS	mg/kg	0.00086	U	0.0013	U	0.0012	U	0.059	U	0.00085	U	0.042	U
	1,3-Dichloropropane	142-28-9			500	NS	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	1,1,1,2-Tetrachloroethane	630-20-6			0.1	0.1	mg/kg	0.00043	U	0.00064	U	0.00058	U	0.03	U	0.00043	U	0.021	U
	Bromobenzene	108-86-1			100	NS	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	n-Butylbenzene	104-51-8				NS	mg/kg	0.00086	U	0.0013	U	0.0012	U	0.059	U	0.00085	U	0.042	U
	sec-Butylbenzene	135-98-8				NS	mg/kg	0.00086	U	0.0013	U	0.0012	U	0.059	U	0.00085	U	0.042	U
	tert-Butylbenzene	98-06-6			100	NS	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	o-Chlorotoluene	95-49-8			100	NS	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	p-Chlorotoluene	106-43-4				NS	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	1,2-Dibromo-3-chloropropane	96-12-8			10	NS	mg/kg	0.0026	U	0.0038	U	0.0035	U	0.18	U	0.0026	U	0.13	U
	Hexachlorobutadiene	87-68-3			30	30	mg/kg	0.0034	U										

Summary of Phase 1 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION								GLX-TPW-306-1		GLX-TPW-307-1.5		GLX-TPW-307-1.5		GLX-TPW-201-1.5		GLX-TPW-201-7		GLX-TPW-308-0.5	
SAMPLING DATE								5/23/2019		5/23/2019		5/23/2019		5/23/2019		5/23/2019		5/23/2019	
LAB SAMPLE ID								L1921946-01		L1921946-04		L1921946-04 R1		L1921946-07		L1921946-13		L1921946-16	
SAMPLE TYPE								SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.)																			
		CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
MCP Volatile Organics by EPA 5035																			
	p-Isopropyltoluene	99-87-6			100	NS	mg/kg	0.00086	U	0.0013	U	0.0012	U	0.059	U	0.00085	U	0.042	U
	Naphthalene	91-20-3			4	4	mg/kg	0.0034	U	0.0051	U	0.0047	U	0.24	U	0.0034	U	0.17	U
	n-Propylbenzene	103-65-1			100	NS	mg/kg	0.00086	U	0.0013	U	0.0012	U	0.059	U	0.00085	U	0.042	U
	1,2,3-Trichlorobenzene	87-61-6				NS	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	1,2,4-Trichlorobenzene	120-82-1			2	2	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	1,3,5-Trimethylbenzene	108-67-8			10	NS	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	1,2,4-Trimethylbenzene	95-63-6			1000	NS	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	Diethyl ether	60-29-7			100	NS	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	Diisopropyl Ether	108-20-3			100	NS	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	Ethyl-Tert-Butyl-Ether	637-92-3				NS	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	Tertiary-Amyl Methyl Ether	994-05-8				NS	mg/kg	0.0017	U	0.0026	U	0.0023	U	0.12	U	0.0017	U	0.084	U
	1,4-Dioxane	123-91-1			0.2	0.2	mg/kg	0.068	U	0.1	U	0.094	U	4.7	U	0.068	U	3.4	U
	Total VOCs		10	4			mg/kg												

Yellow shading indicates detected result is equal to or above one or more of the listed criteria.

Gray shading indicates nondetect detection limit is above one or more of the listed criteria.

Bold typeface indicates detection above metiond detection limit.

MA-LLAND: Lined Landfill Limits current as of August, 1997
MA-ULAND: UnLined Landfill Limits current as of August, 1997
RCS-1-14: MCP 2014 RCS-1 Reportable Concentrations Criteria effective April 25, 2014.
MCP 2014 S-1 Cleanup Criteria effective April 25, 2014; the lowest S-1/GW-X standard is shown.
**EPA-TCLP: EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria per 40CFR Part 261 as of September 10, 2015.

U - Not detected at the reported detection limit for the sample.
ND - Not detected.
E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

¹ - The laboratory reported two sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results and lowest detection limits have been tabulated. Refer to laboratory report for further detail.

² - The laboratory reported three sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results from the low-level analysis and detection limits from the high-level analysis have been tabulated due to significant internal standard issues with the low-level analysis. Refer to laboratory report for further detail.

Summary of Phase 1 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							GLX-TPW-309-0.5		GLX-TPW-310-0.5		GLX-TPW-311-0.5		GLX-TPW-215-2.5		GLX-TPW-501-4.5		GLX-TPW-502-2.5	
SAMPLING DATE							5/23/2019		5/23/2019		5/23/2019		5/23/2019		5/23/2019		5/23/2019	
LAB SAMPLE ID							L1921946-19		L1921946-22		L1921946-25		L1921946-28		L1921946-31		L1921946-32	
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.)																		
	CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
General Chemistry																		
Solids, Total	NONE					%	94.6		93.3		96.4		92.1		89.4		93.3	
MCP Volatile Organics by EPA 5035																		
Methylene chloride	75-09-2			0.1	NS	mg/kg	0.28	U	0.24	U	0.0035	U	0.0048	U	0.0037	U	0.0042	U
1,1-Dichloroethane	75-34-3			0.4	0.4	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U
Chloroform	67-66-3			0.2	0.2	mg/kg	0.085	U	0.072	U	0.001	U	0.0014	U	0.0011	U	0.0013	U
Carbon tetrachloride	56-23-5			5	5	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U
1,2-Dichloropropane	78-87-5			0.1	0.1	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U
Dibromochloromethane	124-48-1			0.005	0.005	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U
1,1,2-Trichloroethane	79-00-5			0.1	0.1	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U
Tetrachloroethene	127-18-4			1	1	mg/kg	1.9		0.43		0.00035	U	0.0088		0.0011		0.00096	
Chlorobenzene	108-90-7			1	1	mg/kg	0.028	U	0.024	U	0.00035	U	0.00048	U	0.00037	U	0.00042	U
Trichlorofluoromethane	75-69-4			1000	NS	mg/kg	0.23	U	0.19	U	0.0028	U	0.0038	U	0.003	U	0.0034	U
1,2-Dichloroethane	107-06-2			0.1	0.1	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U
1,1,1-Trichloroethane	71-55-6			30	30	mg/kg	0.028	U	0.024	U	0.00035	U	0.00048	U	0.0011		0.0022	
Bromodichloromethane	75-27-4			0.1	0.1	mg/kg	0.028	U	0.024	U	0.00035	U	0.00048	U	0.00037	U	0.00042	U
trans-1,3-Dichloropropene	10061-02-6			0.01	NS	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U
cis-1,3-Dichloropropene	10061-01-5			0.01	NS	mg/kg	0.028	U	0.024	U	0.00035	U	0.00048	U	0.00037	U	0.00042	U
1,3-Dichloropropene, Total	542-75-6			0.01	0.01	mg/kg	0.028	U	0.024	U	0.00035	U	0.00048	U	0.00037	U	0.00042	U
1,1-Dichloropropene	563-58-6				NS	mg/kg	0.028	U	0.024	U	0.00035	U	0.00048	U	0.00037	U	0.00042	U
Bromoform	75-25-2			0.1	0.1	mg/kg	0.23	U	0.19	U	0.0028	U	0.0038	U	0.003	U	0.0034	U
1,1,2,2-Tetrachloroethane	79-34-5			0.005	0.005	mg/kg	0.028	U	0.024	U	0.00035	U	0.00048	U	0.00037	U	0.00042	U
Benzene	71-43-2			2	2	mg/kg	0.028	U	0.024	U	0.00035	U	0.00048	U	0.00037	U	0.00042	U
Toluene	108-88-3			30	30	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.0018		0.00085	U
Ethylbenzene	100-41-4			40	40	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U
Chloromethane	74-87-3			100	NS	mg/kg	0.23	U	0.19	U	0.0028	U	0.0038	U	0.003	U	0.0034	U
Bromomethane	74-83-9			0.5	0.5	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
Vinyl chloride	75-01-4			0.7	0.7	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U
Chloroethane	75-00-3			100	NS	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
1,1-Dichloroethene	75-35-4			3	3	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U
trans-1,2-Dichloroethene	156-60-5			1	1	mg/kg	0.085	U	0.072	U	0.001	U	0.0014	U	0.0011	U	0.0013	U
Trichloroethene	79-01-6			0.3	0.3	mg/kg	0.052		0.024	U	0.00035	U	0.0007		0.0013		0.0012	
1,2-Dichlorobenzene	95-50-1			9	9	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
1,3-Dichlorobenzene	541-73-1			3	3	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
1,4-Dichlorobenzene	106-46-7			0.7	0.7	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
Methyl tert butyl ether	1634-04-4			0.1	0.1	mg/kg	0.11		0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
p/m-Xylene	179601-23-1			100	100	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
o-Xylene	95-47-6			100	100	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U
Xylenes, Total	1330-20-7			100	100	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U
cis-1,2-Dichloroethene	156-59-2			0.1	0.1	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U
1,2-Dichloroethene, Total	540-59-0				NS	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U
Dibromomethane	74-95-3			500	NS	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
1,2,3-Trichloropropane	96-18-4			100	NS	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
Styrene	100-42-5			3	3	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U
Dichlorodifluoromethane	75-71-8			1000	NS	mg/kg	0.57	U	0.48	U	0.007	U	0.0095	U	0.0075	U	0.0085	U
Acetone	67-64-1			6	6	mg/kg	0.57	U	0.48	U	0.24	E	0.023		0.033		0.015	
Carbon disulfide	75-15-0			100	NS	mg/kg	0.57	U	0.48	U	0.007	U	0.0095	U	0.0075	U	0.0085	U
Methyl ethyl ketone	78-93-3			4	4	mg/kg	0.57	U	0.48	U	0.007	U	0.0095	U	0.0075	U	0.0085	U
Methyl isobutyl ketone	108-10-1			0.4	0.4	mg/kg	0.57		0.48		0.007	U	0.0095	U	0.0075	U	0.0085	U
2-Hexanone	591-78-6			100	NS	mg/kg	0.57	U	0.48	U	0.007	U	0.0095	U	0.0075	U	0.0085	U
Bromochloromethane	74-97-5				NS	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
Tetrahydrofuran	109-99-9			500	NS	mg/kg	0.23	U	0.19	U	0.0028	U	0.0038	U	0.003	U	0.0034	U
2,2-Dichloropropane	594-20-7				NS	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
1,2-Dibromoethane	106-93-4			0.1	NS	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U
1,3-Dichloropropane	142-28-9			500	NS	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
1,1,1,2-Tetrachloroethane	630-20-6			0.1	0.1	mg/kg	0.028	U	0.024	U	0.00035	U	0.00048	U	0.00037	U	0.00042	U
Bromobenzene	108-86-1			100	NS	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
n-Butylbenzene	104-51-8				NS	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U
sec-Butylbenzene	135-98-8				NS	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U
tert-Butylbenzene	98-06-6			100	NS	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
o-Chlorotoluene	95-49-8			100	NS	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
p-Chlorotoluene	106-43-4				NS	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
1,2-Dibromo-3-chloropropane	96-12-8			10	NS	mg/kg	0.17	U	0.14	U	0.0021	U	0.0029	U	0.0022	U	0.0026	U
Hexachlorobutadiene	87-68-3			30	30	mg/kg	0.23	U	0.19	U	0.0028	U	0.0038	U	0.003	U	0.0034	U
Isopropylbenzene	98-82-8			1000	NS	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U

Summary of Phase 1 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							GLX-TPW-309-0.5		GLX-TPW-310-0.5		GLX-TPW-311-0.5		GLX-TPW-215-2.5		GLX-TPW-501-4.5		GLX-TPW-502-2.5	
SAMPLING DATE							5/23/2019		5/23/2019		5/23/2019		5/23/2019		5/23/2019		5/23/2019	
LAB SAMPLE ID							L1921946-19		L1921946-22		L1921946-25		L1921946-28		L1921946-31		L1921946-32	
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.)																		
	CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
MCP Volatile Organics by EPA 5035																		
	p-Isopropyltoluene	99-87-6		100	NS	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U
	Naphthalene	91-20-3		4	4	mg/kg	0.23	U	0.19	U	0.0028	U	0.0038	U	0.003	U	0.0034	U
	n-Propylbenzene	103-65-1		100	NS	mg/kg	0.057	U	0.048	U	0.0007	U	0.00095	U	0.00075	U	0.00085	U
	1,2,3-Trichlorobenzene	87-61-6			NS	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
	1,2,4-Trichlorobenzene	120-82-1		2	2	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
	1,3,5-Trimethylbenzene	108-67-8		10	NS	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
	1,2,4-Trimethylbenzene	95-63-6		1000	NS	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
	Diethyl ether	60-29-7		100	NS	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
	Diisopropyl Ether	108-20-3		100	NS	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
	Ethyl-Tert-Butyl-Ether	637-92-3			NS	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
	Tertiary-Amyl Methyl Ether	994-05-8			NS	mg/kg	0.11	U	0.096	U	0.0014	U	0.0019	U	0.0015	U	0.0017	U
	1,4-Dioxane	123-91-1		0.2	0.2	mg/kg	4.5	U	3.8	U	0.056	U	0.076	U	0.06	U	0.068	U
	Total VOCs		10	4		mg/kg												

Yellow shading indicates detected result is equal to or above one or more of the listed criteria.

Gray shading indicates nondetect detection limit is above one or more of the listed criteria.

Bold typeface indicates detection above metiond detection limit.

MA-LLAND: Lined Landfill Limits current as of August, 1997
MA-ULAND: UnLined Landfill Limits current as of August, 1997
RCS-1-14: MCP 2014 RCS-1 Reportable Concentrations Criteria effective April 25, 2014.
MCP 2014 S-1 Cleanup Criteria effective April 25, 2014; the lowest S-1/GW-X standard is shown.
**EPA-TCLP: EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria per 40CFR Part 261 as of September 10, 2015.

U - Not detected at the reported detection limit for the sample.
ND - Not detected.
E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

¹ - The laboratory reported two sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results and lowest detection limits have been tabulated. Refer to laboratory report for further detail.

² - The laboratory reported three sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results from the low-level analysis and detection limits from the high-level analysis have been tabulated due to significant internal standard issues with the low-level analysis. Refer to laboratory report for further detail.

Summary of Phase 1 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							RAM PLAN											
SAMPLING DATE							GLX-TPW-214-3.5		GLX-TPW-212-3.5'		GLX-TPW-204-6'		GLX-TPW-213-4.5'		GLX-TPW-312-0.5'		GLX-TPW-203-6'	
LAB SAMPLE ID							L1921946-33		L1922181-03		L1922181-09		L1922181-12		L1922181-15		L1922181-21	
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.)																		
	CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
General Chemistry																		
Solids, Total	NONE					%	91.8		89.6		91.7		90.8		91.8		94.1	
MCP Volatile Organics by EPA 5035																		
Methylene chloride	75-09-2			0.1	NS	mg/kg	0.22	U	0.0041	U	0.0048	U	0.54	U	0.21	U	0.0049	U
1,1-Dichloroethane	75-34-3			0.4	0.4	mg/kg	0.044	U	0.00082	U	0.00097	U	0.11	U	0.043	U	0.00098	U
Chloroform	67-66-3			0.2	0.2	mg/kg	0.066	U	0.0012	U	0.0014	U	0.16	U	0.064	U	0.0015	U
Carbon tetrachloride	56-23-5			5	5	mg/kg	0.044	U	0.00082	U	0.00097	U	0.11	U	0.043	U	0.00098	U
1,2-Dichloropropane	78-87-5			0.1	0.1	mg/kg	0.044	U	0.00082	U	0.00097	U	0.11	U	0.043	U	0.00098	U
Dibromochloromethane	124-48-1			0.005	0.005	mg/kg	0.044	U	0.00082	U	0.00097	U	0.11	U	0.043	U	0.00098	U
1,1,2-Trichloroethane	79-00-5			0.1	0.1	mg/kg	0.044	U	0.00082	U	0.00097	U	0.11	U	0.043	U	0.00098	U
Tetrachloroethene	127-18-4			1	1	mg/kg	7.9		0.001		0.016		14		1		0.0016	
Chlorobenzene	108-90-7			1	1	mg/kg	0.022	U	0.00041	U	0.00048	U	0.054	U	0.021	U	0.00049	U
Trichlorofluoromethane	75-69-4			1000	NS	mg/kg	0.18	U	0.0033	U	0.0039	U	0.44	U	0.17	U	0.0039	U
1,2-Dichloroethane	107-06-2			0.1	0.1	mg/kg	0.044	U	0.00082	U	0.00097	U	0.11	U	0.043	U	0.00098	U
1,1,1-Trichloroethane	71-55-6			30	30	mg/kg	0.17		0.00041	U	0.0023		0.21		0.021	U	0.00049	U
Bromodichloromethane	75-27-4			0.1	0.1	mg/kg	0.022	U	0.00041	U	0.00048	U	0.054	U	0.021	U	0.00049	U
trans-1,3-Dichloropropene	10061-02-6			0.01	NS	mg/kg	0.044	U	0.00082	U	0.00097	U	0.11	U	0.043	U	0.00098	U
cis-1,3-Dichloropropene	10061-01-5			0.01	NS	mg/kg	0.022	U	0.00041	U	0.00048	U	0.054	U	0.021	U	0.00049	U
1,3-Dichloropropene, Total	542-75-6			0.01	0.01	mg/kg	0.022	U	0.00041	U	0.00048	U	0.054	U	0.021	U	0.00049	U
1,1-Dichloropropene	563-58-6				NS	mg/kg	0.022	U	0.00041	U	0.00048	U	0.054	U	0.021	U	0.00049	U
Bromoform	75-25-2			0.1	0.1	mg/kg	0.18	U	0.0033	U	0.0039	U	0.44	U	0.17	U	0.0039	U
1,1,2,2-Tetrachloroethane	79-34-5			0.005	0.005	mg/kg	0.022	U	0.00041	U	0.00048	U	0.054	U	0.021	U	0.00049	U
Benzene	71-43-2			2	2	mg/kg	0.022	U	0.0006		0.00048	U	0.054	U	0.021	U	0.00049	U
Toluene	108-88-3			30	30	mg/kg	0.044	U	0.00082	U	0.0015		0.11	U	0.043	U	0.00098	U
Ethylbenzene	100-41-4			40	40	mg/kg	0.044	U	0.00082	U	0.00097	U	0.11	U	0.043	U	0.00098	U
Chloromethane	74-87-3			100	NS	mg/kg	0.18	U	0.0033	U	0.0039	U	0.44	U	0.17	U	0.0039	U
Bromomethane	74-83-9			0.5	0.5	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
Vinyl chloride	75-01-4			0.7	0.7	mg/kg	0.044	U	0.00082	U	0.00097	U	0.11	U	0.043	U	0.00098	U
Chloroethane	75-00-3			100	NS	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
1,1-Dichloroethene	75-35-4			3	3	mg/kg	0.044	U	0.00082	U	0.00097	U	0.11	U	0.043	U	0.00098	U
trans-1,2-Dichloroethene	156-60-5			1	1	mg/kg	0.066	U	0.0012	U	0.0014	U	0.16	U	0.064	U	0.0015	U
Trichloroethene	79-01-6			0.3	0.3	mg/kg	0.16		0.0012		0.0014		0.58		0.021	U	0.00049	U
1,2-Dichlorobenzene	95-50-1			9	9	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
1,3-Dichlorobenzene	541-73-1			3	3	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
1,4-Dichlorobenzene	106-46-7			0.7	0.7	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
Methyl tert butyl ether	1634-04-4			0.1	0.1	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
p/m-Xylene	179601-23-1			100	100	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
o-Xylene	95-47-6			100	100	mg/kg	0.044	U	0.00082	U	0.00097	U	0.11	U	0.043	U	0.00098	U
Xylenes, Total	1330-20-7			100	100	mg/kg	0.044	U	0.00082	U	0.00097	U	0.11	U	0.043	U	0.00098	U
cis-1,2-Dichloroethene	156-59-2			0.1	0.1	mg/kg	0.044	U	0.0034		0.00097	U	0.11	U	0.043	U	0.00098	U
1,2-Dichloroethene, Total	540-59-0				NS	mg/kg	0.044	U	0.0034		0.00097	U	0.11	U	0.043	U	0.00098	U
Dibromomethane	74-95-3			500	NS	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
1,2,3-Trichloropropane	96-18-4			100	NS	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
Styrene	100-42-5			3	3	mg/kg	0.044	U	0.00082	U	0.00097	U	0.11	U	0.043	U	0.00098	U
Dichlorodifluoromethane	75-71-8			1000	NS	mg/kg	0.44	U	0.0082	U	0.0097	U	1.1	U	0.43	U	0.0098	U
Acetone	67-64-1			6	6	mg/kg	0.44	U	0.028		0.039		1.1	U	0.43	U	0.027	
Carbon disulfide	75-15-0			100	NS	mg/kg	0.44	U	0.0082	U	0.0097	U	1.1	U	0.43	U	0.0098	U
Methyl ethyl ketone	78-93-3			4	4	mg/kg	0.44	U	0.0082	U	0.0097	U	1.1	U	0.43	U	0.0098	U
Methyl isobutyl ketone	108-10-1			0.4	0.4	mg/kg	0.44	U	0.0082	U	0.0097	U	1.1	U	0.43	U	0.0098	U
2-Hexanone	591-78-6			100	NS	mg/kg	0.44	U	0.0082	U	0.0097	U	1.1	U	0.43	U	0.0098	U
Bromochloromethane	74-97-5				NS	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
Tetrahydrofuran	109-99-9			500	NS	mg/kg	0.18	U	0.0033	U	0.0039	U	0.44	U	0.17	U	0.0039	U
2,2-Dichloropropane	594-20-7				NS	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
1,2-Dibromoethane	106-93-4			0.1	NS	mg/kg	0.044	U	0.00082	U	0.00097	U	0.11	U	0.043	U	0.00098	U
1,3-Dichloropropane	142-28-9			500	NS	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
1,1,1,2-Tetrachloroethane	630-20-6			0.1	0.1	mg/kg	0.022	U	0.00041	U	0.00048	U	0.054	U	0.021	U	0.00049	U
Bromobenzene	108-86-1			100	NS	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
n-Butylbenzene	104-51-8				NS	mg/kg	0.044	U	0.00082	U	0.00097	U	0.11	U	0.043	U	0.00098	U
sec-Butylbenzene	135-98-8				NS	mg/kg	0.044	U	0.00082	U	0.00097	U	0.11	U	0.043	U	0.00098	U
tert-Butylbenzene	98-06-6			100	NS	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
o-Chlorotoluene	95-49-8			100	NS	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
p-Chlorotoluene	106-43-4				NS	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
1,2-Dibromo-3-chloropropane	96-12-8			10	NS	mg/kg	0.13	U	0.0025	U	0.0029	U	0.33	U	0.13	U	0.0029	U
Hexachlorobutadiene	87-68-3			30	30	mg/kg	0.18	U	0.0033	U	0.0039	U	0.44	U	0.17	U	0.0039	U
Isopropylbenzene	98-82-8			1000	NS	mg/kg	0.044	U	0.00082	U	0.00097	U	0.11	U	0.043	U	0.00098	U

Summary of Phase 1 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

								RAM PLAN											
LOCATION								GLX-TPW-214-3.5		GLX-TPW-212-3.5'		GLX-TPW-204-6'		GLX-TPW-213-4.5'		GLX-TPW-312-0.5'		GLX-TPW-203-6'	
SAMPLING DATE								5/23/2019		5/24/2019		5/24/2019		5/24/2019		5/24/2019		5/24/2019	
LAB SAMPLE ID								L19221946-33		L1922181-03		L1922181-09		L1922181-12		L1922181-15		L1922181-21	
SAMPLE TYPE								SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.)																			
		CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
MCP Volatile Organics by EPA 5035																			
	p-Isopropyltoluene	99-87-6			100	NS	mg/kg	0.044	U	0.00082	U	0.00097	U	0.11	U	0.043	U	0.00098	U
	Naphthalene	91-20-3			4	4	mg/kg	0.18	U	0.0033	U	0.0039	U	0.44	U	0.17	U	0.0039	U
	n-Propylbenzene	103-65-1			100	NS	mg/kg	0.044	U	0.00082	U	0.00097	U	0.11	U	0.043	U	0.00098	U
	1,2,3-Trichlorobenzene	87-61-6				NS	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
	1,2,4-Trichlorobenzene	120-82-1			2	2	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
	1,3,5-Trimethylbenzene	108-67-8			10	NS	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
	1,2,4-Trimethylbenzene	95-63-6			1000	NS	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
	Diethyl ether	60-29-7			100	NS	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
	Diisopropyl Ether	108-20-3			100	NS	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
	Ethyl-Tert-Butyl-Ether	637-92-3				NS	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
	Tertiary-Amyl Methyl Ether	994-05-8				NS	mg/kg	0.089	U	0.0016	U	0.0019	U	0.22	U	0.086	U	0.002	U
	1,4-Dioxane	123-91-1			0.2	0.2	mg/kg	3.5	U	0.066	U	0.078	U	8.7	U	3.4	U	0.078	U
	Total VOCs		10	4			mg/kg												

Yellow shading indicates detected result is equal to or above one or more of the listed criteria.

Gray shading indicates nondetect detection limit is above one or more of the listed criteria.

Bold typeface indicates detection above metiond detection limit.

MA-LLAND: Lined Landfill Limits current as of August, 1997
MA-ULAND: UnLined Landfill Limits current as of August, 1997
RCS-1-14: MCP 2014 RCS-1 Reportable Concentrations Criteria effective April 25, 2014.
MCP 2014 S-1 Cleanup Criteria effective April 25, 2014; the lowest S-1/GW-X standard is shown.
**EPA-TCLP: EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria per 40CFR Part 261 as of September 10, 2015.

U - Not detected at the reported detection limit for the sample.
ND - Not detected.
E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

¹ - The laboratory reported two sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results and lowest detection limits have been tabulated. Refer to laboratory report for further detail.

² - The laboratory reported three sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results from the low-level analysis and detection limits from the high-level analysis have been tabulated due to significant internal standard issues with the low-level analysis. Refer to laboratory report for further detail.

Summary of Phase 1 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							GLX-TPW-305-0.5'		GLX-TPW-205-8'		GLX-TPW-201-5		GLX-TPW-204-4.5'		GLX-TPW-203-4.5'		GLX-TPW-205-3.5'	
SAMPLING DATE							5/24/2019		5/24/2019		5/23/2019		5/24/2019		5/24/2019		5/24/2019	
LAB SAMPLE ID							L1922181-29		L1922181-30		L1922758-01		L1922773-01		L1922773-02		L1922773-03	
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.)																		
	CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
General Chemistry																		
Solids, Total	NONE					%	95.8		95		80.2		93.5		92.2		95.8	
MCP Volatile Organics by EPA 5035																		
Methylene chloride	75-09-2			0.1	NS	mg/kg	0.0045	U	0.0044	U	0.0032	U	0.0045	U	0.0042	U	0.0035	U
1,1-Dichloroethane	75-34-3			0.4	0.4	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U
Chloroform	67-66-3			0.2	0.2	mg/kg	0.0013	U	0.0013	U	0.00096	U	0.0014	U	0.0012	U	0.0011	U
Carbon tetrachloride	56-23-5			5	5	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U
1,2-Dichloropropane	78-87-5			0.1	0.1	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U
Dibromochloromethane	124-48-1			0.005	0.005	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U
1,1,2-Trichloroethane	79-00-5			0.1	0.1	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U
Tetrachloroethene	127-18-4			1	1	mg/kg	0.00045	U	0.006		0.00032	U	0.0094		0.00042		0.0057	
Chlorobenzene	108-90-7			1	1	mg/kg	0.00045	U	0.00044	U	0.00032	U	0.00045	U	0.00042	U	0.00035	U
Trichlorofluoromethane	75-69-4			1000	NS	mg/kg	0.0036	U	0.0036	U	0.0026	U	0.0036	U	0.0033	U	0.0028	U
1,2-Dichloroethane	107-06-2			0.1	0.1	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U
1,1,1-Trichloroethane	71-55-6			30	30	mg/kg	0.00045	U	0.00044	U	0.00032	U	0.0018		0.00042	U	0.00035	U
Bromodichloromethane	75-27-4			0.1	0.1	mg/kg	0.00045	U	0.00044	U	0.00032	U	0.00045	U	0.00042	U	0.00035	U
trans-1,3-Dichloropropene	10061-02-6			0.01	NS	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U
cis-1,3-Dichloropropene	10061-01-5			0.01	NS	mg/kg	0.00045	U	0.00044	U	0.00032	U	0.00045	U	0.00042	U	0.00035	U
1,3-Dichloropropene, Total	542-75-6			0.01	0.01	mg/kg	0.00045	U	0.00044	U	0.00032	U	0.00045	U	0.00042	U	0.00035	U
1,1-Dichloropropene	563-58-6				NS	mg/kg	0.00045	U	0.00044	U	0.00032	U	0.00045	U	0.00042	U	0.00035	U
Bromoform	75-25-2			0.1	0.1	mg/kg	0.0036	U	0.0036	U	0.0026	U	0.0036	U	0.0033	U	0.0028	U
1,1,2,2-Tetrachloroethane	79-34-5			0.005	0.005	mg/kg	0.00045	U	0.00044	U	0.00032	U	0.00045	U	0.00042	U	0.00035	U
Benzene	71-43-2			2	2	mg/kg	0.00045	U	0.00044	U	0.00032	U	0.00045	U	0.00042	U	0.00035	U
Toluene	108-88-3			30	30	mg/kg	0.00099		0.0014		0.00064	U	0.00091	U	0.00083	U	0.0011	
Ethylbenzene	100-41-4			40	40	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U
Chloromethane	74-87-3			100	NS	mg/kg	0.0036	U	0.0036	U	0.0026	U	0.0036	U	0.0033	U	0.0028	U
Bromomethane	74-83-9			0.5	0.5	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
Vinyl chloride	75-01-4			0.7	0.7	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U
Chloroethane	75-00-3			100	NS	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
1,1-Dichloroethene	75-35-4			3	3	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U
trans-1,2-Dichloroethene	156-60-5			1	1	mg/kg	0.0013	U	0.0013	U	0.00096	U	0.0014	U	0.0012	U	0.0011	U
Trichloroethene	79-01-6			0.3	0.3	mg/kg	0.00045	U	0.00057		0.00032	U	0.00098		0.00042	U	0.00056	
1,2-Dichlorobenzene	95-50-1			9	9	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
1,3-Dichlorobenzene	541-73-1			3	3	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
1,4-Dichlorobenzene	106-46-7			0.7	0.7	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
Methyl tert butyl ether	1634-04-4			0.1	0.1	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
p/m-Xylene	179601-23-1			100	100	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
o-Xylene	95-47-6			100	100	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U
Xylenes, Total	1330-20-7			100	100	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U
cis-1,2-Dichloroethene	156-59-2			0.1	0.1	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U
1,2-Dichloroethene, Total	540-59-0				NS	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U
Dibromomethane	74-95-3			500	NS	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
1,2,3-Trichloropropane	96-18-4			100	NS	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
Styrene	100-42-5			3	3	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U
Dichlorodifluoromethane	75-71-8			1000	NS	mg/kg	0.009	U	0.0089	U	0.0064	U	0.0091	U	0.0083	U	0.0071	U
Acetone	67-64-1			6	6	mg/kg	0.33	E	0.049		0.032		0.017		0.017		0.15	
Carbon disulfide	75-15-0			100	NS	mg/kg	0.009	U	0.0089	U	0.0064	U	0.0091	U	0.0083	U	0.0071	U
Methyl ethyl ketone	78-93-3			4	4	mg/kg	0.016		0.0089	U	0.0064	U	0.0091	U	0.0083	U	0.0071	U
Methyl isobutyl ketone	108-10-1			0.4	0.4	mg/kg	0.009	U	0.0089	U	0.0064	U	0.0091	U	0.0083	U	0.0071	U
2-Hexanone	591-78-6			100	NS	mg/kg	0.009	U	0.0089	U	0.0064	U	0.0091	U	0.0083	U	0.0071	U
Bromochloromethane	74-97-5				NS	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
Tetrahydrofuran	109-99-9			500	NS	mg/kg	0.42	E	0.0036	U	0.0026	U	0.0036	U	0.0033	U	0.0028	U
2,2-Dichloropropane	594-20-7				NS	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
1,2-Dibromoethane	106-93-4			0.1	NS	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U
1,3-Dichloropropane	142-28-9			500	NS	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
1,1,1,2-Tetrachloroethane	630-20-6			0.1	0.1	mg/kg	0.00045	U	0.00044	U	0.00032	U	0.00045	U	0.00042	U	0.00035	U
Bromobenzene	108-86-1			100	NS	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
n-Butylbenzene	104-51-8				NS	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U
sec-Butylbenzene	135-98-8				NS	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U
tert-Butylbenzene	98-06-6			100	NS	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
o-Chlorotoluene	95-49-8			100	NS	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
p-Chlorotoluene	106-43-4				NS	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
1,2-Dibromo-3-chloropropane	96-12-8			10	NS	mg/kg	0.0027	U	0.0027	U	0.0019	U	0.0027	U	0.0025	U	0.0021	U
Hexachlorobutadiene	87-68-3			30	30	mg/kg	0.0036	U	0.0036	U	0.0026	U	0.0036	U	0.0033	U	0.0028	U
Isopropylbenzene	98-82-8			1000	NS	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U

Summary of Phase 1 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION								GLX-TPW-305-0.5'		GLX-TPW-205-8'		GLX-TPW-201-5		GLX-TPW-204-4.5'		GLX-TPW-203-4.5'		GLX-TPW-205-3.5'	
SAMPLING DATE								5/24/2019		5/24/2019		5/23/2019		5/24/2019		5/24/2019		5/24/2019	
LAB SAMPLE ID								L1922181-29		L1922181-30		L1922758-01		L1922773-01		L1922773-02		L1922773-03	
SAMPLE TYPE								SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.)																			
		CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
MCP Volatile Organics by EPA 5035																			
	p-Isopropyltoluene	99-87-6			100	NS	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U
	Naphthalene	91-20-3			4	4	mg/kg	0.0036	U	0.0036	U	0.0026	U	0.0036	U	0.0033	U	0.0028	U
	n-Propylbenzene	103-65-1			100	NS	mg/kg	0.0009	U	0.00089	U	0.00064	U	0.00091	U	0.00083	U	0.00071	U
	1,2,3-Trichlorobenzene	87-61-6				NS	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
	1,2,4-Trichlorobenzene	120-82-1			2	2	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
	1,3,5-Trimethylbenzene	108-67-8			10	NS	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
	1,2,4-Trimethylbenzene	95-63-6			1000	NS	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
	Diethyl ether	60-29-7			100	NS	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
	Diisopropyl Ether	108-20-3			100	NS	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
	Ethyl-Tert-Butyl-Ether	637-92-3				NS	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
	Tertiary-Amyl Methyl Ether	994-05-8				NS	mg/kg	0.0018	U	0.0018	U	0.0013	U	0.0018	U	0.0017	U	0.0014	U
	1,4-Dioxane	123-91-1			0.2	0.2	mg/kg	0.072	U	0.071	U	0.051	U	0.072	U	0.066	U	0.057	U
	Total VOCs		10	4			mg/kg												

Yellow shading indicates detected result is equal to or above one or more of the listed criteria.

Gray shading indicates nondetect detection limit is above one or more of the listed criteria.

Bold typeface indicates detection above metiond detection limit.

MA-LLAND: Lined Landfill Limits current as of August, 1997
MA-ULAND: UnLined Landfill Limits current as of August, 1997
RCS-1-14: MCP 2014 RCS-1 Reportable Concentrations Criteria effective April 25, 2014.
MCP 2014 S-1 Cleanup Criteria effective April 25, 2014; the lowest S-1/GW-X standard is shown.
**EPA-TCLP: EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria per 40CFR Part 261 as of September 10, 2015.

U - Not detected at the reported detection limit for the sample.
ND - Not detected.
E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

¹ - The laboratory reported two sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results and lowest detection limits have been tabulated. Refer to laboratory report for further detail.

² - The laboratory reported three sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results from the low-level analysis and detection limits from the high-level analysis have been tabulated due to significant internal standard issues with the low-level analysis. Refer to laboratory report for further detail.

Summary of Phase 1 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							GLX-TPW-3081-1.5'		GLX-TPW-3091-1.5'		GLX-TPW-3121-1.5'		GLX-TPW-2131-4.5'		GLX-TPW-2132-4.5'		GLX-TPW-2141-3.5'	
SAMPLING DATE							5/31/2019		5/31/2019		5/31/2019		5/31/2019		5/31/2019		5/31/2019	
LAB SAMPLE ID							L1923201-03		L1923201-06		L1923201-09		L1923201-12		L1923201-15		L1923201-18	
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.)																		
	CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
General Chemistry																		
Solids, Total	NONE					%	83		89.2		92		93.2		92.6		93.5	
MCP Volatile Organics by EPA 5035																		
Methylene chloride	75-09-2			0.1	NS	mg/kg	0.0068	U	0.0044	U	0.0047	U	0.0048	U	0.0038	U	0.0047	U
1,1-Dichloroethane	75-34-3			0.4	0.4	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U
Chloroform	67-66-3			0.2	0.2	mg/kg	0.002	U	0.0013	U	0.0014	U	0.0014	U	0.0011	U	0.0014	U
Carbon tetrachloride	56-23-5			5	5	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U
1,2-Dichloropropane	78-87-5			0.1	0.1	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U
Dibromochloromethane	124-48-1			0.005	0.005	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U
1,1,2-Trichloroethane	79-00-5			0.1	0.1	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U
Tetrachloroethene	127-18-4			1	1	mg/kg	0.00068	U	0.003		0.0014		0.00071		0.0033		0.098	
Chlorobenzene	108-90-7			1	1	mg/kg	0.00068	U	0.00044	U	0.00047	U	0.00048	U	0.00038	U	0.00047	U
Trichlorofluoromethane	75-69-4			1000	NS	mg/kg	0.0054	U	0.0036	U	0.0038	U	0.0038	U	0.003	U	0.0037	U
1,2-Dichloroethane	107-06-2			0.1	0.1	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U
1,1,1-Trichloroethane	71-55-6			30	30	mg/kg	0.00068	U	0.00057		0.00047		0.00048		0.00038	U	0.0033	
Bromodichloromethane	75-27-4			0.1	0.1	mg/kg	0.00068	U	0.00044	U	0.00047	U	0.00048	U	0.00038	U	0.00047	U
trans-1,3-Dichloropropene	10061-02-6			0.01	NS	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U
cis-1,3-Dichloropropene	10061-01-5			0.01	NS	mg/kg	0.00068	U	0.00044	U	0.00047	U	0.00048	U	0.00038	U	0.00047	U
1,3-Dichloropropene, Total	542-75-6			0.01	0.01	mg/kg	0.00068	U	0.00044	U	0.00047	U	0.00048	U	0.00038	U	0.00047	U
1,1-Dichloropropene	563-58-6			NS	NS	mg/kg	0.00068	U	0.00044	U	0.00047	U	0.00048	U	0.00038	U	0.00047	U
Bromoform	75-25-2			0.1	0.1	mg/kg	0.0054	U	0.0036	U	0.0038	U	0.0038	U	0.003	U	0.0037	U
1,1,2,2-Tetrachloroethane	79-34-5			0.005	0.005	mg/kg	0.00068	U	0.00044	U	0.00047	U	0.00048	U	0.00038	U	0.00047	U
Benzene	71-43-2			2	2	mg/kg	0.00068	U	0.00044	U	0.00047	U	0.00048	U	0.00038	U	0.00047	U
Toluene	108-88-3			30	30	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.0016		0.00076	U	0.00093	U
Ethylbenzene	100-41-4			40	40	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U
Chloromethane	74-87-3			100	NS	mg/kg	0.0054	U	0.0036	U	0.0038	U	0.0038	U	0.003	U	0.0037	U
Bromomethane	74-83-9			0.5	0.5	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
Vinyl chloride	75-01-4			0.7	0.7	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U
Chloroethane	75-00-3			100	NS	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
1,1-Dichloroethene	75-35-4			3	3	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U
trans-1,2-Dichloroethene	156-60-5			1	1	mg/kg	0.002	U	0.0013	U	0.0014	U	0.0014	U	0.0011	U	0.0014	U
Trichloroethene	79-01-6			0.3	0.3	mg/kg	0.00068	U	0.00044	U	0.00047	U	0.00048	U	0.00038	U	0.0089	
1,2-Dichlorobenzene	95-50-1			9	9	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
1,3-Dichlorobenzene	541-73-1			3	3	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
1,4-Dichlorobenzene	106-46-7			0.7	0.7	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
Methyl tert butyl ether	1634-04-4			0.1	0.1	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
p/m-Xylene	179601-23-1			100	100	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
o-Xylene	95-47-6			100	100	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U
Xylenes, Total	1330-20-7			100	100	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U
cis-1,2-Dichloroethene	156-59-2			0.1	0.1	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U
1,2-Dichloroethene, Total	540-59-0			NS	NS	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U
Dibromomethane	74-95-3			500	NS	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
1,2,3-Trichloropropane	96-18-4			100	NS	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
Styrene	100-42-5			3	3	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U
Dichlorodifluoromethane	75-71-8			1000	NS	mg/kg	0.014	U	0.0089	U	0.0094	U	0.0096	U	0.0076	U	0.0093	U
Acetone	67-64-1			6	6	mg/kg	0.066		0.18		0.27		0.064		0.21		0.16	
Carbon disulfide	75-15-0			100	NS	mg/kg	0.014	U	0.0089	U	0.0094	U	0.0096	U	0.0076	U	0.0093	U
Methyl ethyl ketone	78-93-3			4	4	mg/kg	0.014	U	0.0089	U	0.0094	U	0.0096	U	0.0076	U	0.0093	U
Methyl isobutyl ketone	108-10-1			0.4	0.4	mg/kg	0.014	U	0.0089	U	0.0094	U	0.0096	U	0.0076	U	0.0093	U
2-Hexanone	591-78-6			100	NS	mg/kg	0.014	U	0.0089	U	0.0094	U	0.0096	U	0.0076	U	0.0093	U
Bromochloromethane	74-97-5			NS	NS	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
Tetrahydrofuran	109-99-9			500	NS	mg/kg	0.0054	U	0.0036	U	0.0038	U	0.0038	U	0.003	U	0.0037	U
2,2-Dichloropropane	594-20-7			NS	NS	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
1,2-Dibromoethane	106-93-4			0.1	NS	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U
1,3-Dichloropropane	142-28-9			500	NS	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
1,1,1,2-Tetrachloroethane	630-20-6			0.1	0.1	mg/kg	0.00068	U	0.00044	U	0.00047	U	0.00048	U	0.00038	U	0.00047	U
Bromobenzene	108-86-1			100	NS	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
n-Butylbenzene	104-51-8			NS	NS	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U
sec-Butylbenzene	135-98-8			NS	NS	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U
tert-Butylbenzene	98-06-6			100	NS	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
o-Chlorotoluene	95-49-8			100	NS	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
p-Chlorotoluene	106-43-4			NS	NS	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
1,2-Dibromo-3-chloropropane	96-12-8			10	NS	mg/kg	0.004	U	0.0027	U	0.0028	U	0.0029	U	0.0023	U	0.0028	U
Hexachlorobutadiene	87-68-3			30	30	mg/kg	0.0054	U	0.0036	U	0.0038	U	0.0038	U	0.003	U	0.0037	U
Isopropylbenzene	98-82-8			1000	NS	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U

Summary of Phase 1 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION								GLX-TPW-3081-1.5'		GLX-TPW-3091-1.5'		GLX-TPW-3121-1.5'		GLX-TPW-2131-4.5'		GLX-TPW-2132-4.5'		GLX-TPW-2141-3.5'	
SAMPLING DATE								5/31/2019		5/31/2019		5/31/2019		5/31/2019		5/31/2019		5/31/2019	
LAB SAMPLE ID								L1923201-03		L1923201-06		L1923201-09		L1923201-12		L1923201-15		L1923201-18	
SAMPLE TYPE								SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.)																			
		CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
MCP Volatile Organics by EPA 5035																			
	p-Isopropyltoluene	99-87-6			100	NS	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U
	Naphthalene	91-20-3			4	4	mg/kg	0.0054	U	0.0036	U	0.0038	U	0.0038	U	0.003	U	0.0037	U
	n-Propylbenzene	103-65-1			100	NS	mg/kg	0.0014	U	0.00089	U	0.00094	U	0.00096	U	0.00076	U	0.00093	U
	1,2,3-Trichlorobenzene	87-61-6				NS	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
	1,2,4-Trichlorobenzene	120-82-1			2	2	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
	1,3,5-Trimethylbenzene	108-67-8			10	NS	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
	1,2,4-Trimethylbenzene	95-63-6			1000	NS	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
	Diethyl ether	60-29-7			100	NS	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
	Diisopropyl Ether	108-20-3			100	NS	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
	Ethyl-Tert-Butyl-Ether	637-92-3				NS	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
	Tertiary-Amyl Methyl Ether	994-05-8				NS	mg/kg	0.0027	U	0.0018	U	0.0019	U	0.0019	U	0.0015	U	0.0019	U
	1,4-Dioxane	123-91-1			0.2	0.2	mg/kg	0.11	U	0.071	U	0.075	U	0.077	U	0.061	U	0.075	U
	Total VOCs		10	4			mg/kg												

Yellow shading indicates detected result is equal to or above one or more of the listed criteria.

Gray shading indicates nondetect detection limit is above one or more of the listed criteria.

Bold typeface indicates detection above metiond detection limit.

MA-LLAND: Lined Landfill Limits current as of August, 1997
MA-ULAND: UnLined Landfill Limits current as of August, 1997
RCS-1-14: MCP 2014 RCS-1 Reportable Concentrations Criteria effective April 25, 2014.
MCP 2014 S-1 Cleanup Criteria effective April 25, 2014; the lowest S-1/GW-X standard is shown.
**EPA-TCLP: EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria per 40CFR Part 261 as of September 10, 2015.

U - Not detected at the reported detection limit for the sample.
ND - Not detected.
E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

¹ - The laboratory reported two sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results and lowest detection limits have been tabulated. Refer to laboratory report for further detail.

² - The laboratory reported three sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results from the low-level analysis and detection limits from the high-level analysis have been tabulated due to significant internal standard issues with the low-level analysis. Refer to laboratory report for further detail.

Summary of Phase 1 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							GLX-TPW-2142-3.5'		GLX-TPW-503-4.5'		GLX-TPW-504-5'		GLX-TPW-505-5'	
SAMPLING DATE							5/31/2019		5/31/2019		5/31/2019		5/31/2019	
LAB SAMPLE ID							L1923201-21		L1923201-24		L1923201-27		L1923201-30	
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.)														
	CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual
General Chemistry														
Solids, Total	NONE					%	92.2		91.4		92.3		90.3	
MCP Volatile Organics by EPA 5035														
Methylene chloride	75-09-2			0.1	NS	mg/kg	0.0054	U	0.0054	U	0.0043	U	0.0038	U
1,1-Dichloroethane	75-34-3			0.4	0.4	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U
Chloroform	67-66-3			0.2	0.2	mg/kg	0.0016	U	0.0016	U	0.0013	U	0.0012	U
Carbon tetrachloride	56-23-5			5	5	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U
1,2-Dichloropropane	78-87-5			0.1	0.1	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U
Dibromochloromethane	124-48-1			0.005	0.005	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U
1,1,2-Trichloroethane	79-00-5			0.1	0.1	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U
Tetrachloroethene	127-18-4			1	1	mg/kg	0.0068		0.0006		0.00043	U	0.00038	U
Chlorobenzene	108-90-7			1	1	mg/kg	0.00054	U	0.00054	U	0.00043	U	0.00038	U
Trichlorofluoromethane	75-69-4			1000	NS	mg/kg	0.0043	U	0.0044	U	0.0034	U	0.0031	U
1,2-Dichloroethane	107-06-2			0.1	0.1	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U
1,1,1-Trichloroethane	71-55-6			30	30	mg/kg	0.00076		0.00054		0.00043	U	0.00038	U
Bromodichloromethane	75-27-4			0.1	0.1	mg/kg	0.00054	U	0.00054	U	0.00043	U	0.00038	U
trans-1,3-Dichloropropene	10061-02-6			0.01	NS	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U
cis-1,3-Dichloropropene	10061-01-5			0.01	NS	mg/kg	0.00054	U	0.00054	U	0.00043	U	0.00038	U
1,3-Dichloropropene, Total	542-75-6			0.01	0.01	mg/kg	0.00054	U	0.00054	U	0.00043	U	0.00038	U
1,1-Dichloropropene	563-58-6			NS	NS	mg/kg	0.00054	U	0.00054	U	0.00043	U	0.00038	U
Bromoform	75-25-2			0.1	0.1	mg/kg	0.0043	U	0.0044	U	0.0034	U	0.0031	U
1,1,2,2-Tetrachloroethane	79-34-5			0.005	0.005	mg/kg	0.00054	U	0.00054	U	0.00043	U	0.00038	U
Benzene	71-43-2			2	2	mg/kg	0.00054	U	0.00054	U	0.00043	U	0.00038	U
Toluene	108-88-3			30	30	mg/kg	0.0019		0.0014		0.0012		0.00077	U
Ethylbenzene	100-41-4			40	40	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U
Chloromethane	74-87-3			100	NS	mg/kg	0.0043	U	0.0044	U	0.0034	U	0.0031	U
Bromomethane	74-83-9			0.5	0.5	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
Vinyl chloride	75-01-4			0.7	0.7	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U
Chloroethane	75-00-3			100	NS	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
1,1-Dichloroethene	75-35-4			3	3	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U
trans-1,2-Dichloroethene	156-60-5			1	1	mg/kg	0.0016	U	0.0016	U	0.0013	U	0.0012	U
Trichloroethene	79-01-6			0.3	0.3	mg/kg	0.00054	U	0.00054	U	0.00043	U	0.00038	U
1,2-Dichlorobenzene	95-50-1			9	9	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
1,3-Dichlorobenzene	541-73-1			3	3	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
1,4-Dichlorobenzene	106-46-7			0.7	0.7	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
Methyl tert butyl ether	1634-04-4			0.1	0.1	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
p/m-Xylene	179601-23-1			100	100	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
o-Xylene	95-47-6			100	100	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U
Xylenes, Total	1330-20-7			100	100	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U
cis-1,2-Dichloroethene	156-59-2			0.1	0.1	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U
1,2-Dichloroethene, Total	540-59-0				NS	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U
Dibromomethane	74-95-3			500	NS	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
1,2,3-Trichloropropane	96-18-4			100	NS	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
Styrene	100-42-5			3	3	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U
Dichlorodifluoromethane	75-71-8			1000	NS	mg/kg	0.011	U	0.011	U	0.0086	U	0.0077	U
Acetone	67-64-1			6	6	mg/kg	0.061		0.087		0.042		0.13	
Carbon disulfide	75-15-0			100	NS	mg/kg	0.011	U	0.011	U	0.0086	U	0.0077	U
Methyl ethyl ketone	78-93-3			4	4	mg/kg	0.011	U	0.011	U	0.0086	U	0.0077	U
Methyl isobutyl ketone	108-10-1			0.4	0.4	mg/kg	0.011	U	0.011	U	0.0086	U	0.0077	U
2-Hexanone	591-78-6			100	NS	mg/kg	0.011	U	0.011	U	0.0086	U	0.0077	U
Bromochloromethane	74-97-5				NS	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
Tetrahydrofuran	109-99-9			500	NS	mg/kg	0.0043	U	0.0044	U	0.0034	U	0.0031	U
2,2-Dichloropropane	594-20-7				NS	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
1,2-Dibromoethane	106-93-4			0.1	NS	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U
1,3-Dichloropropane	142-28-9			500	NS	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
1,1,1,2-Tetrachloroethane	630-20-6			0.1	0.1	mg/kg	0.00054	U	0.00054	U	0.00043	U	0.00038	U
Bromobenzene	108-86-1			100	NS	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
n-Butylbenzene	104-51-8				NS	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U
sec-Butylbenzene	135-98-8				NS	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U
tert-Butylbenzene	98-06-6			100	NS	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
o-Chlorotoluene	95-49-8			100	NS	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
p-Chlorotoluene	106-43-4				NS	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
1,2-Dibromo-3-chloropropane	96-12-8			10	NS	mg/kg	0.0032	U	0.0033	U	0.0026	U	0.0023	U
Hexachlorobutadiene	87-68-3			30	30	mg/kg	0.0043	U	0.0044	U	0.0034	U	0.0031	U
Isopropylbenzene	98-82-8			1000	NS	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U

Summary of Phase 1 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION								GLX-TPW-2142-3.5'		GLX-TPW-503-4.5'		GLX-TPW-504-5'		GLX-TPW-505-5'	
SAMPLING DATE								5/31/2019		5/31/2019		5/31/2019		5/31/2019	
LAB SAMPLE ID								L1923201-21		L1923201-24		L1923201-27		L1923201-30	
SAMPLE TYPE								SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.)															
		CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual
MCP Volatile Organics by EPA 5035															
	p-Isopropyltoluene	99-87-6			100	NS	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U
	Naphthalene	91-20-3			4	4	mg/kg	0.0043	U	0.0044	U	0.0034	U	0.0031	U
	n-Propylbenzene	103-65-1			100	NS	mg/kg	0.0011	U	0.0011	U	0.00086	U	0.00077	U
	1,2,3-Trichlorobenzene	87-61-6				NS	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
	1,2,4-Trichlorobenzene	120-82-1			2	2	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
	1,3,5-Trimethylbenzene	108-67-8			10	NS	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
	1,2,4-Trimethylbenzene	95-63-6			1000	NS	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
	Diethyl ether	60-29-7			100	NS	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
	Diisopropyl Ether	108-20-3			100	NS	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
	Ethyl-Tert-Butyl-Ether	637-92-3				NS	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
	Tertiary-Amyl Methyl Ether	994-05-8				NS	mg/kg	0.0022	U	0.0022	U	0.0017	U	0.0015	U
	1,4-Dioxane	123-91-1			0.2	0.2	mg/kg	0.087	U	0.087	U	0.069	U	0.062	U
	Total VOCs		10	4			mg/kg								

Yellow shading indicates detected result is equal to or above one or more of the listed criteria.

Gray shading indicates nondetect detection limit is above one or more of the listed criteria.

Bold typeface indicates detection above metiond detection limit.

MA-LLAND: Lined Landfill Limits current as of August, 1997
MA-ULAND: UnLined Landfill Limits current as of August, 1997
RCS-1-14: MCP 2014 RCS-1 Reportable Concentrations Criteria effective April 25, 2014.
MCP 2014 S-1 Cleanup Criteria effective April 25, 2014; the lowest S-1/GW-X standard is shown.
**EPA-TCLP: EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria per 40CFR Part 261 as of September 10, 2015.

U - Not detected at the reported detection limit for the sample.
ND - Not detected.
E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
¹ - The laboratory reported two sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results and lowest detection limits have been tabulated. Refer to laboratory report for further detail.
² - The laboratory reported three sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results from the low-level analysis and detection limits from the high-level analysis have been tabulated due to significant internal standard issues with the low-level analysis. Refer to laboratory report for further detail.

Summary of Phase 2 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							GLX-TPW-601-VOC-2 ¹		GLX-TPW-601-VOC-3		GLX-TPW-601-VOC-6		TPW-615-VOC-1		GLX-TPW-615-VOC-4		
SAMPLING DATE							10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		
LAB SAMPLE ID							L1949294-28		L1949294-29		L1949294-30		L1949294-31		L1949294-32		
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL		
SAMPLE DEPTH (ft.)																	
		CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
General Chemistry																	
	Solids, Total	NONE					%	95.1		81.5		90.4		93.1		92.5	
MCP Volatile Organics by EPA 5035																	
	Methylene chloride	75-09-2			0.1	NS	mg/kg	0.0035	U	0.54	U	0.0038	U	0.0041	U	0.0033	U
	1,1-Dichloroethane	75-34-3			0.4	0.4	mg/kg	0.0007	U	0.11	U	0.00076	U	0.00082	U	0.00066	U
	Chloroform	67-66-3			0.2	0.2	mg/kg	0.001	U	0.16	U	0.0011	U	0.0012	U	0.00099	U
	Carbon tetrachloride	56-23-5			5	5	mg/kg	0.0007	U	0.11	U	0.00076	U	0.00082	U	0.00066	U
	1,2-Dichloropropane	78-87-5			0.1	0.1	mg/kg	0.0007	U	0.11	U	0.00076	U	0.00082	U	0.00066	U
	Dibromochloromethane	124-48-1			0.005	0.005	mg/kg	0.0007	U	0.11	U	0.00076	U	0.00082	U	0.00066	U
	1,1,2-Trichloroethane	79-00-5			0.1	0.1	mg/kg	0.0007	U	0.11	U	0.00076	U	0.00082	U	0.00066	U
	Tetrachloroethene	127-18-4			1	1	mg/kg	0.0012		0.7		0.00038	U	0.00041	U	0.00033	U
	Chlorobenzene	108-90-7			1	1	mg/kg	0.00035	U	0.054	U	0.00038	U	0.00041	U	0.00033	U
	Trichlorofluoromethane	75-69-4			1000	NS	mg/kg	0.0028	U	0.43	U	0.003	U	0.0033	U	0.0026	U
	1,2-Dichloroethane	107-06-2			0.1	0.1	mg/kg	0.0007	U	0.11	U	0.00076	U	0.00082	U	0.00066	U
	1,1,1-Trichloroethane	71-55-6			30	30	mg/kg	0.00035	U	0.054	U	0.00038	U	0.00041	U	0.00033	U
	Bromodichloromethane	75-27-4			0.1	0.1	mg/kg	0.00035	U	0.054	U	0.00038	U	0.00041	U	0.00033	U
	trans-1,3-Dichloropropene	10061-02-6			0.01	NS	mg/kg	0.0007	U	0.11	U	0.00076	U	0.00082	U	0.00066	U
	cis-1,3-Dichloropropene	10061-01-5			0.01	NS	mg/kg	0.00035	U	0.054	U	0.00038	U	0.00041	U	0.00033	U
	1,3-Dichloropropene, Total	542-75-6			0.01	0.01	mg/kg	0.00035	U	0.054	U	0.00038	U	0.00041	U	0.00033	U
	1,1-Dichloropropene	563-58-6				NS	mg/kg	0.00035	U	0.054	U	0.00038	U	0.00041	U	0.00033	U
	Bromoform	75-25-2			0.1	0.1	mg/kg	0.0028	U	0.43	U	0.003	U	0.0033	U	0.0026	U
	1,1,2,2-Tetrachloroethane	79-34-5			0.005	0.005	mg/kg	0.00035	U	0.054	U	0.00038	U	0.00041	U	0.00033	U
	Benzene	71-43-2			2	2	mg/kg	0.00035	U	0.054	U	0.00038	U	0.00041	U	0.00033	U
	Toluene	108-88-3			30	30	mg/kg	0.0007	U	0.11	U	0.00076	U	0.00082	U	0.00066	U
	Ethylbenzene	100-41-4			40	40	mg/kg	0.0007	U	0.11	U	0.00076	U	0.00082	U	0.00066	U
	Chloromethane	74-87-3			100	NS	mg/kg	0.0028	U	0.43	U	0.003	U	0.0033	U	0.0026	U
	Bromomethane	74-83-9			0.5	0.5	mg/kg	0.0014	U	0.22	U	0.0015	U	0.0016	U	0.0013	U
	Vinyl chloride	75-01-4			0.7	0.7	mg/kg	0.0007	U	0.11	U	0.00076	U	0.00082	U	0.00066	U
	Chloroethane	75-00-3			100	NS	mg/kg	0.0014	U	0.22	U	0.0015	U	0.0016	U	0.0013	U
	1,1-Dichloroethene	75-35-4			3	3	mg/kg	0.0007	U	0.11	U	0.00076	U	0.00082	U	0.00066	U
	trans-1,2-Dichloroethene	156-60-5			1	1	mg/kg	0.001	U	0.16	U	0.0011	U	0.0012	U	0.00099	U
	Trichloroethene	79-01-6			0.3	0.3	mg/kg	0.00035	U	0.054	U	0.00038	U	0.00041	U	0.00033	U
	1,2-Dichlorobenzene	95-50-1			9	9	mg/kg	0.0014	U	0.22	U	0.0015	U	0.0016	U	0.0013	U
	1,3-Dichlorobenzene	541-73-1			3	3	mg/kg	0.0014	U	0.22	U	0.0015	U	0.0016	U	0.0013	U
	1,4-Dichlorobenzene	106-46-7			0.7	0.7	mg/kg	0.0014	U	0.22	U	0.0015	U	0.0016	U	0.0013	U
	Methyl tert butyl ether	1634-04-4			0.1	0.1	mg/kg	0.0014	U	0.22	U	0.0015	U	0.0016	U	0.0013	U
	p/m-Xylene	179601-23-1			100	100	mg/kg	0.0014	U	0.22	U	0.0015	U	0.0016	U	0.0013	U
	o-Xylene	95-47-6			100	100	mg/kg	0.0007	U	0.11	U	0.00076	U	0.00082	U	0.00066	U
	Xylenes, Total	1330-20-7			100	100	mg/kg	0.0007	U	0.11	U	0.00076	U	0.00082	U	0.00066	U
	cis-1,2-Dichloroethene	156-59-2			0.1	0.1	mg/kg	0.0007	U	0.11	U	0.00076	U	0.00082	U	0.00066	U
	1,2-Dichloroethene, Total	540-59-0				NS	mg/kg	0.0007	U	0.11	U	0.00076	U	0.00082	U	0.00066	U
	Dibromomethane	74-95-3			500	NS	mg/kg	0.0014	U	0.22	U	0.0015	U	0.0016	U	0.0013	U
	1,2,3-Trichloropropane	96-18-4			100	NS	mg/kg	0.0014	U	0.22	U	0.0015	U	0.0016	U	0.0013	U
	Styrene	100-42-5			3	3	mg/kg	0.0007	U	0.11	U	0.00076	U	0.00082	U	0.00066	U
	Dichlorodifluoromethane	75-71-8			1000	NS	mg/kg	0.007	U	1.1	U	0.0076	U	0.0082	U	0.0066	U
	Acetone	67-64-1			6	6	mg/kg	0.097		1.1	U	0.034		0.02	U	0.016	U
	Carbon disulfide	75-15-0			100	NS	mg/kg	0.007	U	1.1	U	0.0076	U	0.0082	U	0.0066	U
	Methyl ethyl ketone	78-93-3			4	4	mg/kg	0.007	U	1.1	U	0.0076	U	0.0082	U	0.0066	U
	Methyl isobutyl ketone	108-10-1			0.4	0.4	mg/kg	0.007	U	1.1	U	0.0076	U	0.0082	U	0.0066	U
	2-Hexanone	591-78-6			100	NS	mg/kg	0.007	U	1.1	U	0.0076	U	0.0082	U	0.0066	U
	Bromochloromethane	74-97-5				NS	mg/kg	0.0014	U	0.22	U	0.0015	U	0.0016	U	0.0013	U
	Tetrahydrofuran	109-99-9			500	NS	mg/kg	0.0028	U	0.43	U	0.003	U	0.0033	U	0.0026	U

Summary of Phase 2 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							GLX-TPW-601-VOC-2 ¹			GLX-TPW-601-VOC-3		GLX-TPW-601-VOC-6		TPW-615-VOC-1		GLX-TPW-615-VOC-4	
SAMPLING DATE							10/20/2019			10/20/2019		10/20/2019		10/20/2019		10/20/2019	
LAB SAMPLE ID							L1949294-28			L1949294-29		L1949294-30		L1949294-31		L1949294-32	
SAMPLE TYPE							SOIL			SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.)																	
	CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual		Results	Qual	Results	Qual	Results	Qual	Results	Qual
MCP Volatile Organics by EPA 5035							NS										
	2,2-Dichloropropane	594-20-7			NS	mg/kg	0.0014	U		0.22	U	0.0015	U	0.0016	U	0.0013	U
	1,2-Dibromoethane	106-93-4		0.1	NS	mg/kg	0.0007	U		0.11	U	0.00076	U	0.00082	U	0.00066	U
	1,3-Dichloropropane	142-28-9		500	0.1	mg/kg	0.0014	U		0.22	U	0.0015	U	0.0016	U	0.0013	U
	1,1,1,2-Tetrachloroethane	630-20-6		0.1	NS	mg/kg	0.00035	U		0.054	U	0.00038	U	0.00041	U	0.00033	U
	Bromobenzene	108-86-1		100	NS	mg/kg	0.0014	U		0.22	U	0.0015	U	0.0016	U	0.0013	U
	n-Butylbenzene	104-51-8			NS	mg/kg	0.0007	U		0.11	U	0.00076	U	0.00082	U	0.00066	U
	sec-Butylbenzene	135-98-8			NS	mg/kg	0.0007	U		0.11	U	0.00076	U	0.00082	U	0.00066	U
	tert-Butylbenzene	98-06-6		100	NS	mg/kg	0.0014	U		0.22	U	0.0015	U	0.0016	U	0.0013	U
	o-Chlorotoluene	95-49-8		100	NS	mg/kg	0.0014	U		0.22	U	0.0015	U	0.0016	U	0.0013	U
	p-Chlorotoluene	106-43-4			NS	mg/kg	0.0014	U		0.22	U	0.0015	U	0.0016	U	0.0013	U
	1,2-Dibromo-3-chloropropane	96-12-8		10	30	mg/kg	0.0021	U		0.33	U	0.0023	U	0.0024	U	0.002	U
	Hexachlorobutadiene	87-68-3		30	NS	mg/kg	0.0028	U		0.43	U	0.003	U	0.0033	U	0.0026	U
	Isopropylbenzene	98-82-8		1000		mg/kg	0.0007	U		0.11	U	0.00076	U	0.00082	U	0.00066	U
	p-Isopropyltoluene	99-87-6		100	NS	mg/kg	0.0007	U		0.11	U	0.00076	U	0.00082	U	0.00066	U
	Naphthalene	91-20-3		4	4	mg/kg	0.0028	U		0.43	U	0.003	U	0.0033	U	0.0026	U
	n-Propylbenzene	103-65-1		100	NS	mg/kg	0.0007	U		0.11	U	0.00076	U	0.00082	U	0.00066	U
	1,2,3-Trichlorobenzene	87-61-6			NS	mg/kg	0.0014	U		0.22	U	0.0015	U	0.0016	U	0.0013	U
	1,2,4-Trichlorobenzene	120-82-1		2	2	mg/kg	0.0014	U		0.22	U	0.0015	U	0.0016	U	0.0013	U
	1,3,5-Trimethylbenzene	108-67-8		10	NS	mg/kg	0.0014	U		0.22	U	0.0015	U	0.0016	U	0.0013	U
	1,2,4-Trimethylbenzene	95-63-6		1000	NS	mg/kg	0.0014	U		0.22	U	0.0015	U	0.0016	U	0.0013	U
	Diethyl ether	60-29-7		100	NS	mg/kg	0.0014	U		0.22	U	0.0015	U	0.0016	U	0.0013	U
	Diisopropyl Ether	108-20-3		100	NS	mg/kg	0.0014	U		0.22	U	0.0015	U	0.0016	U	0.0013	U
	Ethyl-Tert-Butyl-Ether	637-92-3			NS	mg/kg	0.0014	U		0.22	U	0.0015	U	0.0016	U	0.0013	U
	Tertiary-Amyl Methyl Ether	994-05-8			NS	mg/kg	0.0014	U		0.22	U	0.0015	U	0.0016	U	0.0013	U
	1,4-Dioxane	123-91-1		0.2	0.2	mg/kg	0.056	U		8.7	U	0.061	U	0.065	U	0.053	U

Yellow shading indicates detected result is equal to or above one or more of the listed criteria.
Gray shading indicates nondetect detection limit is above one or more of the listed criteria.
Bold typeface indicates detection above metiond detection limit.

MA-LLAND: Lined Landfill Limits current as of August, 1997
MA-ULAND: UnLined Landfill Limits current as of August, 1997
RCS-1-14: MCP 2014 RCS-1 Reportable Concentrations Criteria effective April 25, 2014.
MCP 2014 S-1 Cleanup Criteria effective April 25, 2014; the lowest S-1/GW-X standard is shown.
**EPA-TCLP: EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria per 40CFR Part 261 as of September 10, 2015.

- U - Not detected at the reported detection limit for the sample.
ND - Not detected.
E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- ¹ - The laboratory reported two sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results and lowest detection limits have been tabulated. Refer to laboratory report for further detail.
- ² - The laboratory reported three sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results from the low-level analysis and detection limits from the high-level analysis have been tabulated due to significant internal standard issues with the low-level analysis. Refer to laboratory report for further detail.

Summary of Phase 2 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							GLX-TPW-615-VOC-7		GLX-TPW-615-VOC-10		GLX-TPW-615-VOC-13		GLX-TPW-602-VOC-2		GLX-TPW-602-VOC-4.5		GLX-TPW-602-VOC-6.5		
SAMPLING DATE							10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		
LAB SAMPLE ID							L1949294-33		L1949294-34		L1949294-35		L1949294-36		L1949294-37		L1949294-38		
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		
SAMPLE DEPTH (ft.)																			
		CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
General Chemistry																			
	Solids, Total	NONE					%	96		93.4		90.2		91.7		93.4		84.8	
MCP Volatile Organics by EPA 5035																			
	Methylene chloride	75-09-2			0.1	NS	mg/kg	0.0036	U	0.0037	U	0.0034	U	0.28	U	2.4	U	0.005	U
	1,1-Dichloroethane	75-34-3			0.4	0.4	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.056	U	0.47	U	0.001	U
	Chloroform	67-66-3			0.2	0.2	mg/kg	0.0011	U	0.0011	U	0.001	U	0.084	U	0.71	U	0.0015	U
	Carbon tetrachloride	56-23-5			5	5	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.056	U	0.47	U	0.001	U
	1,2-Dichloropropane	78-87-5			0.1	0.1	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.056	U	0.47	U	0.001	U
	Dibromochloromethane	124-48-1			0.005	0.005	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.056	U	0.47	U	0.001	U
	1,1,2-Trichloroethane	79-00-5			0.1	0.1	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.056	U	0.47	U	0.001	U
	Tetrachloroethene	127-18-4			1	1	mg/kg	0.00036	U	0.00037	U	0.00034	U	0.028	U	0.24	U	0.0005	U
	Chlorobenzene	108-90-7			1	1	mg/kg	0.00036	U	0.00037	U	0.00034	U	0.028	U	0.24	U	0.0005	U
	Trichlorofluoromethane	75-69-4			1000	NS	mg/kg	0.0028	U	0.003	U	0.0027	U	0.22	U	1.9	U	0.004	U
	1,2-Dichloroethane	107-06-2			0.1	0.1	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.056	U	0.47	U	0.001	U
	1,1,1-Trichloroethane	71-55-6			30	30	mg/kg	0.00036	U	0.00037	U	0.00034	U	0.028	U	0.24	U	0.0005	U
	Bromodichloromethane	75-27-4			0.1	0.1	mg/kg	0.00036	U	0.00037	U	0.00034	U	0.028	U	0.24	U	0.0005	U
	trans-1,3-Dichloropropene	10061-02-6			0.01	NS	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.056	U	0.47	U	0.001	U
	cis-1,3-Dichloropropene	10061-01-5			0.01	NS	mg/kg	0.00036	U	0.00037	U	0.00034	U	0.028	U	0.24	U	0.0005	U
	1,3-Dichloropropene, Total	542-75-6			0.01	0.01	mg/kg	0.00036	U	0.00037	U	0.00034	U	0.028	U	0.24	U	0.0005	U
	1,1-Dichloropropene	563-58-6				NS	mg/kg	0.00036	U	0.00037	U	0.00034	U	0.028	U	0.24	U	0.0005	U
	Bromoform	75-25-2			0.1	0.1	mg/kg	0.0028	U	0.003	U	0.0027	U	0.22	U	1.9	U	0.004	U
	1,1,2,2-Tetrachloroethane	79-34-5			0.005	0.005	mg/kg	0.00036	U	0.00037	U	0.00034	U	0.028	U	0.24	U	0.0005	U
	Benzene	71-43-2			2	2	mg/kg	0.00036	U	0.00037	U	0.00034	U	0.044		0.24	U	0.0005	U
	Toluene	108-88-3			30	30	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.11		0.47	U	0.001	U
	Ethylbenzene	100-41-4			40	40	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.056	U	0.47	U	0.001	U
	Chloromethane	74-87-3			100	NS	mg/kg	0.0028	U	0.003	U	0.0027	U	0.22	U	1.9	U	0.004	U
	Bromomethane	74-83-9			0.5	0.5	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	Vinyl chloride	75-01-4			0.7	0.7	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.056	U	0.47	U	0.001	U
	Chloroethane	75-00-3			100	NS	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	1,1-Dichloroethene	75-35-4			3	3	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.056	U	0.47	U	0.001	U
	trans-1,2-Dichloroethene	156-60-5			1	1	mg/kg	0.0011	U	0.0011	U	0.001	U	0.084	U	0.71	U	0.0015	U
	Trichloroethene	79-01-6			0.3	0.3	mg/kg	0.00036	U	0.00037	U	0.00034	U	0.028	U	0.24	U	0.0005	U
	1,2-Dichlorobenzene	95-50-1			9	9	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	1,3-Dichlorobenzene	541-73-1			3	3	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	1,4-Dichlorobenzene	106-46-7			0.7	0.7	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	Methyl tert butyl ether	1634-04-4			0.1	0.1	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	p/m-Xylene	179601-23-1			100	100	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	o-Xylene	95-47-6			100	100	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.078		0.47	U	0.001	U
	Xylenes, Total	1330-20-7			100	100	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.078		0.47	U	0.001	U
	cis-1,2-Dichloroethene	156-59-2			0.1	0.1	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.056	U	0.47	U	0.001	U
	1,2-Dichloroethene, Total	540-59-0				NS	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.056	U	0.47	U	0.001	U
	Dibromomethane	74-95-3			500	NS	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	1,2,3-Trichloropropane	96-18-4			100	NS	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	Styrene	100-42-5			3	3	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.056	U	0.47	U	0.001	U
	Dichlorodifluoromethane	75-71-8			1000	NS	mg/kg	0.0071	U	0.0075	U	0.0067	U	0.56	U	4.7	U	0.01	U
	Acetone	67-64-1			6	6	mg/kg	0.036		0.062		0.021		0.56	U	4.7	U	0.11	
	Carbon disulfide	75-15-0			100	NS	mg/kg	0.0071	U	0.0075	U	0.0067	U	0.56	U	4.7	U	0.01	U
	Methyl ethyl ketone	78-93-3			4	4	mg/kg	0.0071	U	0.0075	U	0.0067	U	0.56	U	4.7	U	0.01	U
	Methyl isobutyl ketone	108-10-1			0.4	0.4	mg/kg	0.0071	U	0.0075	U	0.0067	U	0.56	U	4.7	U	0.01	U
	2-Hexanone	591-78-6			100	NS	mg/kg	0.0071	U	0.0075	U	0.0067	U	0.56	U	4.7	U	0.01	U
	Bromochloromethane	74-97-5				NS	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	Tetrahydrofuran	109-99-9			500	NS	mg/kg	0.0028	U	0.003	U	0.0027	U	0.22	U	1.9	U	0.004	U

Summary of Phase 2 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							GLX-TPW-615-VOC-7		GLX-TPW-615-VOC-10		GLX-TPW-615-VOC-13		GLX-TPW-602-VOC-2		GLX-TPW-602-VOC-4.5		GLX-TPW-602-VOC-6.5	
SAMPLING DATE							10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019	
LAB SAMPLE ID							L1949294-33		L1949294-34		L1949294-35		L1949294-36		L1949294-37		L1949294-38	
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.)																		
	CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
MCP Volatile Organics by EPA 5035							NS											
	2,2-Dichloropropane	594-20-7			NS	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	1,2-Dibromoethane	106-93-4		0.1	NS	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.056	U	0.47	U	0.001	U
	1,3-Dichloropropane	142-28-9		500	0.1	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	1,1,1,2-Tetrachloroethane	630-20-6		0.1	NS	mg/kg	0.00036	U	0.00037	U	0.00034	U	0.028	U	0.24	U	0.0005	U
	Bromobenzene	108-86-1		100	NS	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	n-Butylbenzene	104-51-8			NS	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.056	U	0.47	U	0.001	U
	sec-Butylbenzene	135-98-8			NS	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.056	U	0.47	U	0.001	U
	tert-Butylbenzene	98-06-6		100	NS	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	o-Chlorotoluene	95-49-8		100	NS	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	p-Chlorotoluene	106-43-4			NS	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	1,2-Dibromo-3-chloropropane	96-12-8		10	30	mg/kg	0.0021	U	0.0022	U	0.002	U	0.17	U	1.4	U	0.003	U
	Hexachlorobutadiene	87-68-3		30	NS	mg/kg	0.0028	U	0.003	U	0.0027	U	0.22	U	1.9	U	0.004	U
	Isopropylbenzene	98-82-8		1000		mg/kg	0.00071	U	0.00075	U	0.00067	U	0.056	U	0.47	U	0.001	U
	p-Isopropyltoluene	99-87-6		100	NS	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.056	U	0.47	U	0.001	U
	Naphthalene	91-20-3		4	4	mg/kg	0.0028	U	0.003	U	0.0027	U	1		93		0.004	U
	n-Propylbenzene	103-65-1		100	NS	mg/kg	0.00071	U	0.00075	U	0.00067	U	0.056	U	0.47	U	0.001	U
	1,2,3-Trichlorobenzene	87-61-6			NS	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	1,2,4-Trichlorobenzene	120-82-1		2	2	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	1,3,5-Trimethylbenzene	108-67-8		10	NS	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	1,2,4-Trimethylbenzene	95-63-6		1000	NS	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	1.2		0.002	U
	Diethyl ether	60-29-7		100	NS	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	Diisopropyl Ether	108-20-3		100	NS	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	Ethyl-Tert-Butyl-Ether	637-92-3			NS	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	Tertiary-Amyl Methyl Ether	994-05-8			NS	mg/kg	0.0014	U	0.0015	U	0.0013	U	0.11	U	0.94	U	0.002	U
	1,4-Dioxane	123-91-1		0.2	0.2	mg/kg	0.057	U	0.06	U	0.054	U	4.5	U	38	U	0.08	U

Yellow shading indicates detected result is equal to or above one or more of the listed criteria.
Gray shading indicates nondetect detection limit is above one or more of the listed criteria.
Bold typeface indicates detection above metiond detection limit.

MA-LLAND: Lined Landfill Limits current as of August, 1997
MA-ULAND: UnLined Landfill Limits current as of August, 1997
RCS-1-14: MCP 2014 RCS-1 Reportable Concentrations Criteria effective April 25, 2014.
MCP 2014 S-1 Cleanup Criteria effective April 25, 2014; the lowest S-1/GW-X standard is shown.
**EPA-TCLP: EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria per 40CFR Part 261 as of September 10, 2015.

- U - Not detected at the reported detection limit for the sample.
ND - Not detected.
E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- ¹ - The laboratory reported two sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results and lowest detection limits have been tabulated. Refer to laboratory report for further detail.
- ² - The laboratory reported three sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results from the low-level analysis and detection limits from the high-level analysis have been tabulated due to significant internal standard issues with the low-level analysis. Refer to laboratory report for further detail.

Summary of Phase 2 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							GLX-TPW-603-VOC-1.5		GLX-TPW-603-VOC-3		GLX-TPW-604-VOC-1		GLX-TPW-604-VOC-3		GLX-TPW-605-VOC-1		GLX-TPW-605-VOC-3		
SAMPLING DATE							10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		
LAB SAMPLE ID							L1949294-39		L1949294-40		L1949294-41		L1949294-42		L1949294-43		L1949294-44		
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		
SAMPLE DEPTH (ft.)																			
		CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual		
General Chemistry																			
	Solids, Total	NONE					%	96.2		95.7		96.3		90.9		92.7		88.2	
MCP Volatile Organics by EPA 5035																			
	Methylene chloride	75-09-2			0.1	NS	mg/kg	0.0033	U	0.0033	U	0.0034	U	0.0045	U	0.0041	U	0.0047	U
	1,1-Dichloroethane	75-34-3			0.4	0.4	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	Chloroform	67-66-3			0.2	0.2	mg/kg	0.001	U	0.00098	U	0.001	U	0.0013	U	0.0012	U	0.0014	U
	Carbon tetrachloride	56-23-5			5	5	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	1,2-Dichloropropane	78-87-5			0.1	0.1	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	Dibromochloromethane	124-48-1			0.005	0.005	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	1,1,2-Trichloroethane	79-00-5			0.1	0.1	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	Tetrachloroethene	127-18-4			1	1	mg/kg	0.00033	U	0.00033	U	0.00034	U	0.00045	U	0.00041	U	0.00047	U
	Chlorobenzene	108-90-7			1	1	mg/kg	0.00033	U	0.00033	U	0.00034	U	0.00045	U	0.00041	U	0.00047	U
	Trichlorofluoromethane	75-69-4			1000	NS	mg/kg	0.0027	U	0.0026	U	0.0027	U	0.0036	U	0.0032	U	0.0038	U
	1,2-Dichloroethane	107-06-2			0.1	0.1	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	1,1,1-Trichloroethane	71-55-6			30	30	mg/kg	0.00033	U	0.00033	U	0.00034	U	0.00045	U	0.00041	U	0.00047	U
	Bromodichloromethane	75-27-4			0.1	0.1	mg/kg	0.00033	U	0.00033	U	0.00034	U	0.00045	U	0.00041	U	0.00047	U
	trans-1,3-Dichloropropene	10061-02-6			0.01	NS	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	cis-1,3-Dichloropropene	10061-01-5			0.01	NS	mg/kg	0.00033	U	0.00033	U	0.00034	U	0.00045	U	0.00041	U	0.00047	U
	1,3-Dichloropropene, Total	542-75-6			0.01	0.01	mg/kg	0.00033	U	0.00033	U	0.00034	U	0.00045	U	0.00041	U	0.00047	U
	1,1-Dichloropropene	563-58-6				NS	mg/kg	0.00033	U	0.00033	U	0.00034	U	0.00045	U	0.00041	U	0.00047	U
	Bromoform	75-25-2			0.1	0.1	mg/kg	0.0027	U	0.0026	U	0.0027	U	0.0036	U	0.0032	U	0.0038	U
	1,1,2,2-Tetrachloroethane	79-34-5			0.005	0.005	mg/kg	0.00033	U	0.00033	U	0.00034	U	0.00045	U	0.00041	U	0.00047	U
	Benzene	71-43-2			2	2	mg/kg	0.00033	U	0.00033	U	0.00034	U	0.00061		0.00041	U	0.00047	U
	Toluene	108-88-3			30	30	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	Ethylbenzene	100-41-4			40	40	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	Chloromethane	74-87-3			100	NS	mg/kg	0.0027	U	0.0026	U	0.0027	U	0.0036	U	0.0032	U	0.0038	U
	Bromomethane	74-83-9			0.5	0.5	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	Vinyl chloride	75-01-4			0.7	0.7	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	Chloroethane	75-00-3			100	NS	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	1,1-Dichloroethene	75-35-4			3	3	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	trans-1,2-Dichloroethene	156-60-5			1	1	mg/kg	0.001	U	0.00098	U	0.001	U	0.0013	U	0.0012	U	0.0014	U
	Trichloroethene	79-01-6			0.3	0.3	mg/kg	0.00033	U	0.00033	U	0.00034	U	0.00045	U	0.00041	U	0.00047	U
	1,2-Dichlorobenzene	95-50-1			9	9	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	1,3-Dichlorobenzene	541-73-1			3	3	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	1,4-Dichlorobenzene	106-46-7			0.7	0.7	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	Methyl tert butyl ether	1634-04-4			0.1	0.1	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	p/m-Xylene	179601-23-1			100	100	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	o-Xylene	95-47-6			100	100	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	Xylenes, Total	1330-20-7			100	100	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	cis-1,2-Dichloroethene	156-59-2			0.1	0.1	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	1,2-Dichloroethene, Total	540-59-0				NS	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	Dibromomethane	74-95-3			500	NS	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	1,2,3-Trichloropropane	96-18-4			100	NS	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	Styrene	100-42-5			3	3	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	Dichlorodifluoromethane	75-71-8			1000	NS	mg/kg	0.0066	U	0.0065	U	0.0068	U	0.0089	U	0.0081	U	0.0094	U
	Acetone	67-64-1			6	6	mg/kg	0.022		0.027		0.049		0.041		0.034		0.092	
	Carbon disulfide	75-15-0			100	NS	mg/kg	0.0066	U	0.0065	U	0.0068	U	0.0089	U	0.0081	U	0.0094	U
	Methyl ethyl ketone	78-93-3			4	4	mg/kg	0.0066	U	0.0065	U	0.0068	U	0.0089	U	0.0081	U	0.0094	U
	Methyl isobutyl ketone	108-10-1			0.4	0.4	mg/kg	0.0066	U	0.0065	U	0.0068	U	0.0089	U	0.0081	U	0.0094	U
	2-Hexanone	591-78-6			100	NS	mg/kg	0.0066	U	0.0065	U	0.0068	U	0.0089	U	0.0081	U	0.0094	U
	Bromochloromethane	74-97-5				NS	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	Tetrahydrofuran	109-99-9			500	NS	mg/kg	0.0027	U	0.0026	U	0.0027	U	0.0036	U	0.0032	U	0.0038	U

Summary of Phase 2 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							GLX-TPW-603-VOC-1.5		GLX-TPW-603-VOC-3		GLX-TPW-604-VOC-1		GLX-TPW-604-VOC-3		GLX-TPW-605-VOC-1		GLX-TPW-605-VOC-3	
SAMPLING DATE							10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019	
LAB SAMPLE ID							L1949294-39		L1949294-40		L1949294-41		L1949294-42		L1949294-43		L1949294-44	
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.)																		
	CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
MCP Volatile Organics by EPA 5035						NS												
	2,2-Dichloropropane	594-20-7			NS	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	1,2-Dibromoethane	106-93-4		0.1	NS	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	1,3-Dichloropropane	142-28-9		500	0.1	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	1,1,1,2-Tetrachloroethane	630-20-6		0.1	NS	mg/kg	0.00033	U	0.00033	U	0.00034	U	0.00045	U	0.00041	U	0.00047	U
	Bromobenzene	108-86-1		100	NS	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	n-Butylbenzene	104-51-8			NS	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	sec-Butylbenzene	135-98-8			NS	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	tert-Butylbenzene	98-06-6		100	NS	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	o-Chlorotoluene	95-49-8		100	NS	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	p-Chlorotoluene	106-43-4			NS	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	1,2-Dibromo-3-chloropropane	96-12-8		10	30	mg/kg	0.002	U	0.002	U	0.002	U	0.0027	U	0.0024	U	0.0028	U
	Hexachlorobutadiene	87-68-3		30	NS	mg/kg	0.0027	U	0.0026	U	0.0027	U	0.0036	U	0.0032	U	0.0038	U
	Isopropylbenzene	98-82-8		1000		mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	p-Isopropyltoluene	99-87-6		100	NS	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	Naphthalene	91-20-3		4	4	mg/kg	0.0027	U	0.0026	U	0.0027	U	0.0036	U	0.0032	U	0.0038	U
	n-Propylbenzene	103-65-1		100	NS	mg/kg	0.00066	U	0.00065	U	0.00068	U	0.00089	U	0.00081	U	0.00094	U
	1,2,3-Trichlorobenzene	87-61-6			NS	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	1,2,4-Trichlorobenzene	120-82-1		2	2	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	1,3,5-Trimethylbenzene	108-67-8		10	NS	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	1,2,4-Trimethylbenzene	95-63-6		1000	NS	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	Diethyl ether	60-29-7		100	NS	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	Diisopropyl Ether	108-20-3		100	NS	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	Ethyl-Tert-Butyl-Ether	637-92-3			NS	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	Tertiary-Amyl Methyl Ether	994-05-8			NS	mg/kg	0.0013	U	0.0013	U	0.0014	U	0.0018	U	0.0016	U	0.0019	U
	1,4-Dioxane	123-91-1		0.2	0.2	mg/kg	0.053	U	0.052	U	0.054	U	0.072	U	0.065	U	0.075	U

Yellow shading indicates detected result is equal to or above one or more of the listed criteria.
Gray shading indicates nondetect detection limit is above one or more of the listed criteria.
Bold typeface indicates detection above metiond detection limit.

MA-LLAND: Lined Landfill Limits current as of August, 1997
MA-ULAND: UnLined Landfill Limits current as of August, 1997
RCS-1-14: MCP 2014 RCS-1 Reportable Concentrations Criteria effective April 25, 2014.
MCP 2014 S-1 Cleanup Criteria effective April 25, 2014; the lowest S-1/GW-X standard is shown.
**EPA-TCLP: EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria per 40CFR Part 261 as of September 10, 2015.

U - Not detected at the reported detection limit for the sample.
ND - Not detected.
E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
¹ - The laboratory reported two sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results and lowest detection limits have been tabulated. Refer to laboratory report for further detail.
² - The laboratory reported three sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results from the low-level analysis and detection limits from the high-level analysis have been tabulated due to significant internal standard issues with the low-level analysis. Refer to laboratory report for further detail.

Summary of Phase 2 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							DUPA		GLX-TPW-605-VOC-8		GLX-TPW-607-VOC-.6		GLX-TPW-607-VOC-4.6		GLX-TPW-611-VOC-1.5		GLX-TPW-611-VOC-4		
SAMPLING DATE							10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		
LAB SAMPLE ID							L1949294-45		L1949294-46		L1949294-47		L1949294-48		L1949294-49		L1949294-50		
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		
SAMPLE DEPTH (ft.)																			
		CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
General Chemistry																			
	Solids, Total	NONE					%	88.4		87.1		93.3		90.9		85		93.8	
MCP Volatile Organics by EPA 5035																			
	Methylene chloride	75-09-2			0.1	NS	mg/kg	0.005	U	0.0036	U	0.0038	U	0.0039	U	0.0049	U	0.0037	U
	1,1-Dichloroethane	75-34-3			0.4	0.4	mg/kg	0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U	0.00074	U
	Chloroform	67-66-3			0.2	0.2	mg/kg	0.0015	U	0.0011	U	0.0011	U	0.0012	U	0.0015	U	0.0011	U
	Carbon tetrachloride	56-23-5			5	5	mg/kg	0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U	0.00074	U
	1,2-Dichloropropane	78-87-5			0.1	0.1	mg/kg	0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U	0.00074	U
	Dibromochloromethane	124-48-1			0.005	0.005	mg/kg	0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U	0.00074	U
	1,1,2-Trichloroethane	79-00-5			0.1	0.1	mg/kg	0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U	0.00074	U
	Tetrachloroethene	127-18-4			1	1	mg/kg	0.0005	U	0.00036	U	0.00038	U	0.00039	U	0.00049	U	0.00037	U
	Chlorobenzene	108-90-7			1	1	mg/kg	0.0005	U	0.00036	U	0.00038	U	0.00039	U	0.00049	U	0.00037	U
	Trichlorofluoromethane	75-69-4			1000	NS	mg/kg	0.004	U	0.0029	U	0.003	U	0.0031	U	0.0039	U	0.003	U
	1,2-Dichloroethane	107-06-2			0.1	0.1	mg/kg	0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U	0.00074	U
	1,1,1-Trichloroethane	71-55-6			30	30	mg/kg	0.0005	U	0.00036	U	0.00038	U	0.00039	U	0.00049	U	0.00037	U
	Bromodichloromethane	75-27-4			0.1	0.1	mg/kg	0.0005	U	0.00036	U	0.00038	U	0.00039	U	0.00049	U	0.00037	U
	trans-1,3-Dichloropropene	10061-02-6			0.01	NS	mg/kg	0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U	0.00074	U
	cis-1,3-Dichloropropene	10061-01-5			0.01	NS	mg/kg	0.0005	U	0.00036	U	0.00038	U	0.00039	U	0.00049	U	0.00037	U
	1,3-Dichloropropene, Total	542-75-6			0.01	0.01	mg/kg	0.0005	U	0.00036	U	0.00038	U	0.00039	U	0.00049	U	0.00037	U
	1,1-Dichloropropene	563-58-6				NS	mg/kg	0.0005	U	0.00036	U	0.00038	U	0.00039	U	0.00049	U	0.00037	U
	Bromoform	75-25-2			0.1	0.1	mg/kg	0.004	U	0.0029	U	0.003	U	0.0031	U	0.0039	U	0.003	U
	1,1,2,2-Tetrachloroethane	79-34-5			0.005	0.005	mg/kg	0.0005	U	0.00036	U	0.00038	U	0.00039	U	0.00049	U	0.00037	U
	Benzene	71-43-2			2	2	mg/kg	0.0005	U	0.00036	U	0.00038	U	0.00039	U	0.00049	U	0.00037	U
	Toluene	108-88-3			30	30	mg/kg	0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U	0.00074	U
	Ethylbenzene	100-41-4			40	40	mg/kg	0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U	0.00074	U
	Chloromethane	74-87-3			100	NS	mg/kg	0.004	U	0.0029	U	0.003	U	0.0031	U	0.0039	U	0.003	U
	Bromomethane	74-83-9			0.5	0.5	mg/kg	0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U	0.0015	U
	Vinyl chloride	75-01-4			0.7	0.7	mg/kg	0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U	0.00074	U
	Chloroethane	75-00-3			100	NS	mg/kg	0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U	0.0015	U
	1,1-Dichloroethene	75-35-4			3	3	mg/kg	0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U	0.00074	U
	trans-1,2-Dichloroethene	156-60-5			1	1	mg/kg	0.0015	U	0.0011	U	0.0011	U	0.0012	U	0.0015	U	0.0011	U
	Trichloroethene	79-01-6			0.3	0.3	mg/kg	0.0005	U	0.00036	U	0.00038	U	0.00039	U	0.00049	U	0.00037	U
	1,2-Dichlorobenzene	95-50-1			9	9	mg/kg	0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U	0.0015	U
	1,3-Dichlorobenzene	541-73-1			3	3	mg/kg	0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U	0.0015	U
	1,4-Dichlorobenzene	106-46-7			0.7	0.7	mg/kg	0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U	0.0015	U
	Methyl tert butyl ether	1634-04-4			0.1	0.1	mg/kg	0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U	0.0015	U
	p/m-Xylene	179601-23-1			100	100	mg/kg	0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U	0.0015	U
	o-Xylene	95-47-6			100	100	mg/kg	0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U	0.00074	U
	Xylenes, Total	1330-20-7			100	100	mg/kg	0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U	0.00074	U
	cis-1,2-Dichloroethene	156-59-2			0.1	0.1	mg/kg	0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U	0.00074	U
	1,2-Dichloroethene, Total	540-59-0				NS	mg/kg	0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U	0.00074	U
	Dibromomethane	74-95-3			500	NS	mg/kg	0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U	0.0015	U
	1,2,3-Trichloropropane	96-18-4			100	NS	mg/kg	0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U	0.0015	U
	Styrene	100-42-5			3	3	mg/kg	0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U	0.00074	U
	Dichlorodifluoromethane	75-71-8			1000	NS	mg/kg	0.01	U	0.0072	U	0.0075	U	0.0078	U	0.0098	U	0.0074	U
	Acetone	67-64-1			6	6	mg/kg	0.061		0.018	U	0.066		0.03		0.091		0.028	
	Carbon disulfide	75-15-0			100	NS	mg/kg	0.01	U	0.0072	U	0.0075	U	0.0078	U	0.0098	U	0.0074	U
	Methyl ethyl ketone	78-93-3			4	4	mg/kg	0.01	U	0.0072	U	0.0075	U	0.0078	U	0.0098	U	0.0074	U
	Methyl isobutyl ketone	108-10-1			0.4	0.4	mg/kg	0.01	U	0.0072	U	0.0075	U	0.0078	U	0.0098	U	0.0074	U
	2-Hexanone	591-78-6			100	NS	mg/kg	0.01	U	0.0072	U	0.0075	U	0.0078	U	0.0098	U	0.0074	U
	Bromochloromethane	74-97-5				NS	mg/kg	0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U	0.0015	U
	Tetrahydrofuran	109-99-9			500	NS	mg/kg	0.004	U	0.0029	U	0.003	U	0.0031	U	0.0039		0.003	U

Summary of Phase 2 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							DUPA		GLX-TPW-605-VOC-8		GLX-TPW-607-VOC-.6		GLX-TPW-607-VOC-4.6		GLX-TPW-611-VOC-1.5		GLX-TPW-611-VOC-4	
SAMPLING DATE							10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019	
LAB SAMPLE ID							L1949294-45		L1949294-46		L1949294-47		L1949294-48		L1949294-49		L1949294-50	
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.)																		
		CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units		Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
MCP Volatile Organics by EPA 5035							NS											
	2,2-Dichloropropane	594-20-7				NS	mg/kg		0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U
	1,2-Dibromoethane	106-93-4			0.1	NS	mg/kg		0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U
	1,3-Dichloropropane	142-28-9			500	0.1	mg/kg		0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U
	1,1,1,2-Tetrachloroethane	630-20-6			0.1	NS	mg/kg		0.0005	U	0.00036	U	0.00038	U	0.00039	U	0.00049	U
	Bromobenzene	108-86-1			100	NS	mg/kg		0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U
	n-Butylbenzene	104-51-8				NS	mg/kg		0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U
	sec-Butylbenzene	135-98-8				NS	mg/kg		0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U
	tert-Butylbenzene	98-06-6			100	NS	mg/kg		0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U
	o-Chlorotoluene	95-49-8			100	NS	mg/kg		0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U
	p-Chlorotoluene	106-43-4				NS	mg/kg		0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U
	1,2-Dibromo-3-chloropropane	96-12-8			10	30	mg/kg		0.003	U	0.0022	U	0.0022	U	0.0024	U	0.0029	U
	Hexachlorobutadiene	87-68-3			30	NS	mg/kg		0.004	U	0.0029	U	0.003	U	0.0031	U	0.0039	U
	Isopropylbenzene	98-82-8			1000		mg/kg		0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U
	p-Isopropyltoluene	99-87-6			100	NS	mg/kg		0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U
	Naphthalene	91-20-3			4	4	mg/kg		0.004	U	0.0029	U	0.003	U	0.0031	U	0.0039	U
	n-Propylbenzene	103-65-1			100	NS	mg/kg		0.001	U	0.00072	U	0.00075	U	0.00078	U	0.00098	U
	1,2,3-Trichlorobenzene	87-61-6				NS	mg/kg		0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U
	1,2,4-Trichlorobenzene	120-82-1			2	2	mg/kg		0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U
	1,3,5-Trimethylbenzene	108-67-8			10	NS	mg/kg		0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U
	1,2,4-Trimethylbenzene	95-63-6			1000	NS	mg/kg		0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U
	Diethyl ether	60-29-7			100	NS	mg/kg		0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U
	Diisopropyl Ether	108-20-3			100	NS	mg/kg		0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U
	Ethyl-Tert-Butyl-Ether	637-92-3				NS	mg/kg		0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U
	Tertiary-Amyl Methyl Ether	994-05-8				NS	mg/kg		0.002	U	0.0014	U	0.0015	U	0.0016	U	0.002	U
	1,4-Dioxane	123-91-1			0.2	0.2	mg/kg		0.08	U	0.057	U	0.06	U	0.063	U	0.078	U

Yellow shading indicates detected result is equal to or above one or more of the listed criteria.
Gray shading indicates nondetect detection limit is above one or more of the listed criteria.
Bold typeface indicates detection above metiond detection limit.

MA-LLAND: Lined Landfill Limits current as of August, 1997
MA-ULAND: UnLined Landfill Limits current as of August, 1997
RCS-1-14: MCP 2014 RCS-1 Reportable Concentrations Criteria effective April 25, 2014.
MCP 2014 S-1 Cleanup Criteria effective April 25, 2014; the lowest S-1/GW-X standard is shown.
**EPA-TCLP: EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria per 40CFR Part 261 as of September 10, 2015.

- U - Not detected at the reported detection limit for the sample.
ND - Not detected.
E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- ¹ - The laboratory reported two sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results and lowest detection limits have been tabulated. Refer to laboratory report for further detail.
- ² - The laboratory reported three sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results from the low-level analysis and detection limits from the high-level analysis have been tabulated due to significant internal standard issues with the low-level analysis. Refer to laboratory report for further detail.

Summary of Phase 2 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							GLX-TPW-612-VOC-1.5		GLX-TPW-612-VOC-4		GLX-TPW-613-VOC-1.5		GLX-TPW-613-VOC-4		GLX-TPW-614-VOC-1		GLX-TPW-614-VOC-4		
SAMPLING DATE							10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		
LAB SAMPLE ID							L1949294-51		L1949294-52		L1949294-53		L1949294-54		L1949294-55		L1949294-56		
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		
SAMPLE DEPTH (ft.)																			
		CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
General Chemistry																			
Solids, Total		NONE					%	94.2		92.6		93.4		92.5		92.5		93.8	
MCP Volatile Organics by EPA 5035																			
	Methylene chloride	75-09-2			0.1	NS	mg/kg	0.0042	U	0.0038	U	0.0034	U	0.0049	U	0.0043	U	0.0035	U
	1,1-Dichloroethane	75-34-3			0.4	0.4	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	Chloroform	67-66-3			0.2	0.2	mg/kg	0.0013	U	0.0011	U	0.001	U	0.0015	U	0.0013	U	0.001	U
	Carbon tetrachloride	56-23-5			5	5	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	1,2-Dichloropropane	78-87-5			0.1	0.1	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	Dibromochloromethane	124-48-1			0.005	0.005	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	1,1,2-Trichloroethane	79-00-5			0.1	0.1	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	Tetrachloroethene	127-18-4			1	1	mg/kg	0.00042	U	0.00038	U	0.00034	U	0.00049	U	0.00043	U	0.00035	U
	Chlorobenzene	108-90-7			1	1	mg/kg	0.00042	U	0.00038	U	0.00034	U	0.00049	U	0.00043	U	0.00035	U
	Trichlorofluoromethane	75-69-4			1000	NS	mg/kg	0.0034	U	0.003	U	0.0027	U	0.0039	U	0.0034	U	0.0028	U
	1,2-Dichloroethane	107-06-2			0.1	0.1	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	1,1,1-Trichloroethane	71-55-6			30	30	mg/kg	0.00042	U	0.00038	U	0.00034	U	0.00049	U	0.00043	U	0.00035	U
	Bromodichloromethane	75-27-4			0.1	0.1	mg/kg	0.00042	U	0.00038	U	0.00034	U	0.00049	U	0.00043	U	0.00035	U
	trans-1,3-Dichloropropene	10061-02-6			0.01	NS	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	cis-1,3-Dichloropropene	10061-01-5			0.01	NS	mg/kg	0.00042	U	0.00038	U	0.00034	U	0.00049	U	0.00043	U	0.00035	U
	1,3-Dichloropropene, Total	542-75-6			0.01	0.01	mg/kg	0.00042	U	0.00038	U	0.00034	U	0.00049	U	0.00043	U	0.00035	U
	1,1-Dichloropropene	563-58-6				NS	mg/kg	0.00042	U	0.00038	U	0.00034	U	0.00049	U	0.00043	U	0.00035	U
	Bromoform	75-25-2			0.1	0.1	mg/kg	0.0034	U	0.003	U	0.0027	U	0.0039	U	0.0034	U	0.0028	U
	1,1,2,2-Tetrachloroethane	79-34-5			0.005	0.005	mg/kg	0.00042	U	0.00038	U	0.00034	U	0.00049	U	0.00043	U	0.00035	U
	Benzene	71-43-2			2	2	mg/kg	0.00042	U	0.00038	U	0.00034	U	0.00049	U	0.00043	U	0.00035	U
	Toluene	108-88-3			30	30	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	Ethylbenzene	100-41-4			40	40	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	Chloromethane	74-87-3			100	NS	mg/kg	0.0034	U	0.003	U	0.0027	U	0.0039	U	0.0034	U	0.0028	U
	Bromomethane	74-83-9			0.5	0.5	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	Vinyl chloride	75-01-4			0.7	0.7	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	Chloroethane	75-00-3			100	NS	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	1,1-Dichloroethene	75-35-4			3	3	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	trans-1,2-Dichloroethene	156-60-5			1	1	mg/kg	0.0013	U	0.0011	U	0.001	U	0.0015	U	0.0013	U	0.001	U
	Trichloroethene	79-01-6			0.3	0.3	mg/kg	0.00042	U	0.00038	U	0.00034	U	0.00049	U	0.00043	U	0.00035	U
	1,2-Dichlorobenzene	95-50-1			9	9	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	1,3-Dichlorobenzene	541-73-1			3	3	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	1,4-Dichlorobenzene	106-46-7			0.7	0.7	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	Methyl tert butyl ether	1634-04-4			0.1	0.1	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	p/m-Xylene	179601-23-1			100	100	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	o-Xylene	95-47-6			100	100	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	Xylenes, Total	1330-20-7			100	100	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	cis-1,2-Dichloroethene	156-59-2			0.1	0.1	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	1,2-Dichloroethene, Total	540-59-0				NS	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	Dibromomethane	74-95-3			500	NS	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	1,2,3-Trichloropropane	96-18-4			100	NS	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	Styrene	100-42-5			3	3	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	Dichlorodifluoromethane	75-71-8			1000	NS	mg/kg	0.0084	U	0.0076	U	0.0068	U	0.0098	U	0.0085	U	0.007	U
	Acetone	67-64-1			6	6	mg/kg	0.08		0.059		0.028		0.032		0.066		0.017	U
	Carbon disulfide	75-15-0			100	NS	mg/kg	0.0084	U	0.0076	U	0.0068	U	0.0098	U	0.0085	U	0.007	U
	Methyl ethyl ketone	78-93-3			4	4	mg/kg	0.0084	U	0.0076	U	0.0068	U	0.0098	U	0.0085	U	0.007	U
	Methyl isobutyl ketone	108-10-1			0.4	0.4	mg/kg	0.0084	U	0.0076	U	0.0068	U	0.0098	U	0.0085	U	0.007	U
	2-Hexanone	591-78-6			100	NS	mg/kg	0.0084	U	0.0076	U	0.0068	U	0.0098	U	0.0085	U	0.007	U
	Bromochloromethane	74-97-5				NS	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	Tetrahydrofuran	109-99-9			500	NS	mg/kg	0.0034	U	0.003	U	0.0027	U	0.0039	U	0.0034	U	0.0028	U

Summary of Phase 2 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							GLX-TPW-612-VOC-1.5		GLX-TPW-612-VOC-4		GLX-TPW-613-VOC-1.5		GLX-TPW-613-VOC-4		GLX-TPW-614-VOC-1		GLX-TPW-614-VOC-4	
SAMPLING DATE							10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019	
LAB SAMPLE ID							L1949294-51		L1949294-52		L1949294-53		L1949294-54		L1949294-55		L1949294-56	
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.)																		
	CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
MCP Volatile Organics by EPA 5035							NS											
	2,2-Dichloropropane	594-20-7			NS	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	1,2-Dibromoethane	106-93-4		0.1	NS	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	1,3-Dichloropropane	142-28-9		500	0.1	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	1,1,1,2-Tetrachloroethane	630-20-6		0.1	NS	mg/kg	0.00042	U	0.00038	U	0.00034	U	0.00049	U	0.00043	U	0.00035	U
	Bromobenzene	108-86-1		100	NS	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	n-Butylbenzene	104-51-8			NS	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	sec-Butylbenzene	135-98-8			NS	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	tert-Butylbenzene	98-06-6		100	NS	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	o-Chlorotoluene	95-49-8		100	NS	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	p-Chlorotoluene	106-43-4			NS	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	1,2-Dibromo-3-chloropropane	96-12-8		10	30	mg/kg	0.0025	U	0.0023	U	0.002	U	0.0029	U	0.0026	U	0.0021	U
	Hexachlorobutadiene	87-68-3		30	NS	mg/kg	0.0034	U	0.003	U	0.0027	U	0.0039	U	0.0034	U	0.0028	U
	Isopropylbenzene	98-82-8		1000		mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	p-Isopropyltoluene	99-87-6		100	NS	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	Naphthalene	91-20-3		4	4	mg/kg	0.0034	U	0.003	U	0.0027	U	0.0039	U	0.0034	U	0.0028	U
	n-Propylbenzene	103-65-1		100	NS	mg/kg	0.00084	U	0.00076	U	0.00068	U	0.00098	U	0.00085	U	0.0007	U
	1,2,3-Trichlorobenzene	87-61-6			NS	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	1,2,4-Trichlorobenzene	120-82-1		2	2	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	1,3,5-Trimethylbenzene	108-67-8		10	NS	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	1,2,4-Trimethylbenzene	95-63-6		1000	NS	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	Diethyl ether	60-29-7		100	NS	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	Diisopropyl Ether	108-20-3		100	NS	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	Ethyl-Tert-Butyl-Ether	637-92-3			NS	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	Tertiary-Amyl Methyl Ether	994-05-8			NS	mg/kg	0.0017	U	0.0015	U	0.0014	U	0.002	U	0.0017	U	0.0014	U
	1,4-Dioxane	123-91-1		0.2	0.2	mg/kg	0.067	U	0.06	U	0.054	U	0.078	U	0.068	U	0.056	U

Yellow shading indicates detected result is equal to or above one or more of the listed criteria.
Gray shading indicates nondetect detection limit is above one or more of the listed criteria.
Bold typeface indicates detection above metiond detection limit.

MA-LLAND: Lined Landfill Limits current as of August, 1997
MA-ULAND: UnLined Landfill Limits current as of August, 1997
RCS-1-14: MCP 2014 RCS-1 Reportable Concentrations Criteria effective April 25, 2014.
MCP 2014 S-1 Cleanup Criteria effective April 25, 2014; the lowest S-1/GW-X standard is shown.
**EPA-TCLP: EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria per 40CFR Part 261 as of September 10, 2015.

U - Not detected at the reported detection limit for the sample.
ND - Not detected.
E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
¹ - The laboratory reported two sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results and lowest detection limits have been tabulated. Refer to laboratory report for further detail.
² - The laboratory reported three sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results from the low-level analysis and detection limits from the high-level analysis have been tabulated due to significant internal standard issues with the low-level analysis. Refer to laboratory report for further detail.

Summary of Phase 2 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							DUPB		GLX-TPW-606 (1)		GLX-TPW-606 (4)		GLX-TPW-608 (1)		GLX-TPW-608 (4)		GLX-TPW-609 (1) ¹		
SAMPLING DATE							10/20/2019		11/2/2019		11/2/2019		11/2/2019		11/2/2019		11/2/2019		
LAB SAMPLE ID							L1949294-57		L1952035-02		L1952035-04		L1952035-06		L1952035-08		L1952035-10		
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		
SAMPLE DEPTH (ft.)																			
		CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
General Chemistry																			
	Solids, Total	NONE					%	92.7		84.8		90.1		88		86.1		92.6	
MCP Volatile Organics by EPA 5035																			
	Methylene chloride	75-09-2			0.1	NS	mg/kg	0.0039	U	0.004	U	0.0024	U	0.0035	U	0.0047	U	0.0034	U
	1,1-Dichloroethane	75-34-3			0.4	0.4	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U	0.00069	U
	Chloroform	67-66-3			0.2	0.2	mg/kg	0.0012	U	0.0012	U	0.00072	U	0.0011	U	0.0014	U	0.001	U
	Carbon tetrachloride	56-23-5			5	5	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U	0.00069	U
	1,2-Dichloropropane	78-87-5			0.1	0.1	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U	0.00069	U
	Dibromochloromethane	124-48-1			0.005	0.005	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U	0.00069	U
	1,1,2-Trichloroethane	79-00-5			0.1	0.1	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U	0.00069	U
	Tetrachloroethene	127-18-4			1	1	mg/kg	0.00039	U	0.0004	U	0.00024	U	0.00035	U	0.00047	U	0.00034	U
	Chlorobenzene	108-90-7			1	1	mg/kg	0.00039	U	0.0004	U	0.00024	U	0.00035	U	0.00047	U	0.00034	U
	Trichlorofluoromethane	75-69-4			1000	NS	mg/kg	0.0031	U	0.0032	U	0.0019	U	0.0028	U	0.0037	U	0.0027	U
	1,2-Dichloroethane	107-06-2			0.1	0.1	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U	0.00069	U
	1,1,1-Trichloroethane	71-55-6			30	30	mg/kg	0.00039	U	0.0004	U	0.00024	U	0.00035	U	0.00047	U	0.00034	U
	Bromodichloromethane	75-27-4			0.1	0.1	mg/kg	0.00039	U	0.0004	U	0.00024	U	0.00035	U	0.00047	U	0.00034	U
	trans-1,3-Dichloropropene	10061-02-6			0.01	NS	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U	0.00069	U
	cis-1,3-Dichloropropene	10061-01-5			0.01	NS	mg/kg	0.00039	U	0.0004	U	0.00024	U	0.00035	U	0.00047	U	0.00034	U
	1,3-Dichloropropene, Total	542-75-6			0.01	0.01	mg/kg	0.00039	U	0.0004	U	0.00024	U	0.00035	U	0.00047	U	0.00034	U
	1,1-Dichloropropene	563-58-6				NS	mg/kg	0.00039	U	0.0004	U	0.00024	U	0.00035	U	0.00047	U	0.00034	U
	Bromoform	75-25-2			0.1	0.1	mg/kg	0.0031	U	0.0032	U	0.0019	U	0.0028	U	0.0037	U	0.0027	U
	1,1,1,2-Tetrachloroethane	79-34-5			0.005	0.005	mg/kg	0.00039	U	0.0004	U	0.00024	U	0.00035	U	0.00047	U	0.00034	U
	Benzene	71-43-2			2	2	mg/kg	0.00039	U	0.0004	U	0.00024	U	0.00035	U	0.00047	U	0.00034	U
	Toluene	108-88-3			30	30	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U	0.00069	U
	Ethylbenzene	100-41-4			40	40	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U	0.00069	U
	Chloromethane	74-87-3			100	NS	mg/kg	0.0031	U	0.0032	U	0.0019	U	0.0028	U	0.0037	U	0.0027	U
	Bromomethane	74-83-9			0.5	0.5	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U	0.0014	U
	Vinyl chloride	75-01-4			0.7	0.7	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U	0.00069	U
	Chloroethane	75-00-3			100	NS	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U	0.0014	U
	1,1-Dichloroethene	75-35-4			3	3	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U	0.00069	U
	trans-1,2-Dichloroethene	156-60-5			1	1	mg/kg	0.0012	U	0.0012	U	0.00072	U	0.0011	U	0.0014	U	0.001	U
	Trichloroethene	79-01-6			0.3	0.3	mg/kg	0.00039	U	0.0004	U	0.00024	U	0.00035	U	0.00047	U	0.00034	U
	1,2-Dichlorobenzene	95-50-1			9	9	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U	0.0014	U
	1,3-Dichlorobenzene	541-73-1			3	3	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U	0.0014	U
	1,4-Dichlorobenzene	106-46-7			0.7	0.7	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U	0.0014	U
	Methyl tert butyl ether	1634-04-4			0.1	0.1	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U	0.0014	U
	p/m-Xylene	179601-23-1			100	100	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U	0.0014	U
	o-Xylene	95-47-6			100	100	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U	0.00069	U
	Xylenes, Total	1330-20-7			100	100	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U	0.00069	U
	cis-1,2-Dichloroethene	156-59-2			0.1	0.1	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U	0.00069	U
	1,2-Dichloroethene, Total	540-59-0				NS	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U	0.00069	U
	Dibromomethane	74-95-3			500	NS	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U	0.0014	U
	1,2,3-Trichloropropane	96-18-4			100	NS	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U	0.0014	U
	Styrene	100-42-5			3	3	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U	0.00069	U
	Dichlorodifluoromethane	75-71-8			1000	NS	mg/kg	0.0078	U	0.008	U	0.0048	U	0.0071	U	0.0094	U	0.0069	U
	Acetone	67-64-1			6	6	mg/kg	0.052		0.043		0.016		0.02		0.053		0.07	
	Carbon disulfide	75-15-0			100	NS	mg/kg	0.0078	U	0.008	U	0.0048	U	0.0071	U	0.0094	U	0.0069	U
	Methyl ethyl ketone	78-93-3			4	4	mg/kg	0.0078	U	0.008	U	0.0048	U	0.0071	U	0.0094	U	0.0069	U
	Methyl isobutyl ketone	108-10-1			0.4	0.4	mg/kg	0.0078	U	0.008	U	0.0048	U	0.0071	U	0.0094	U	0.0069	U
	2-Hexanone	591-78-6			100	NS	mg/kg	0.0078	U	0.008	U	0.0048	U	0.0071	U	0.0094	U	0.0069	U
	Bromochloromethane	74-97-5				NS	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U	0.0014	U
	Tetrahydrofuran	109-99-9			500	NS	mg/kg	0.0031	U	0.0032	U	0.0019	U	0.0028	U	0.0037	U	0.0027	U

Summary of Phase 2 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION						DUPB		GLX-TPW-606 (1)		GLX-TPW-606 (4)		GLX-TPW-608 (1)		GLX-TPW-608 (4)		GLX-TPW-609 (1) ¹	
SAMPLING DATE						10/20/2019		11/2/2019		11/2/2019		11/2/2019		11/2/2019		11/2/2019	
LAB SAMPLE ID						L1949294-57		L1952035-02		L1952035-04		L1952035-06		L1952035-08		L1952035-10	
SAMPLE TYPE						SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.)																	
		CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
MCP Volatile Organics by EPA 5035						NS											
	2,2-Dichloropropane	594-20-7				NS	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U
	1,2-Dibromoethane	106-93-4			0.1	NS	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U
	1,3-Dichloropropane	142-28-9			500	0.1	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U
	1,1,1,2-Tetrachloroethane	630-20-6			0.1	NS	mg/kg	0.00039	U	0.0004	U	0.00024	U	0.00035	U	0.00047	U
	Bromobenzene	108-86-1			100	NS	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U
	n-Butylbenzene	104-51-8				NS	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U
	sec-Butylbenzene	135-98-8				NS	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U
	tert-Butylbenzene	98-06-6			100	NS	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U
	o-Chlorotoluene	95-49-8			100	NS	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U
	p-Chlorotoluene	106-43-4				NS	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U
	1,2-Dibromo-3-chloropropane	96-12-8			10	30	mg/kg	0.0023	U	0.0024	U	0.0014	U	0.0021	U	0.0028	U
	Hexachlorobutadiene	87-68-3			30	NS	mg/kg	0.0031	U	0.0032	U	0.0019	U	0.0028	U	0.0037	U
	Isopropylbenzene	98-82-8			1000		mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U
	p-Isopropyltoluene	99-87-6			100	NS	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U
	Naphthalene	91-20-3			4	4	mg/kg	0.0031	U	0.0032	U	0.0019	U	0.0028	U	0.0037	U
	n-Propylbenzene	103-65-1			100	NS	mg/kg	0.00078	U	0.0008	U	0.00048	U	0.00071	U	0.00094	U
	1,2,3-Trichlorobenzene	87-61-6				NS	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U
	1,2,4-Trichlorobenzene	120-82-1			2	2	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U
	1,3,5-Trimethylbenzene	108-67-8			10	NS	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U
	1,2,4-Trimethylbenzene	95-63-6			1000	NS	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U
	Diethyl ether	60-29-7			100	NS	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U
	Diisopropyl Ether	108-20-3			100	NS	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U
	Ethyl-Tert-Butyl-Ether	637-92-3				NS	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U
	Tertiary-Amyl Methyl Ether	994-05-8				NS	mg/kg	0.0016	U	0.0016	U	0.00096	U	0.0014	U	0.0019	U
	1,4-Dioxane	123-91-1			0.2	0.2	mg/kg	0.062	U	0.064	U	0.038	U	0.057	U	0.075	U

Yellow shading indicates detected result is equal to or above one or more of the listed criteria.
Gray shading indicates nondetect detection limit is above one or more of the listed criteria.
Bold typeface indicates detection above metiond detection limit.

MA-LLAND: Lined Landfill Limits current as of August, 1997
MA-ULAND: UnLined Landfill Limits current as of August, 1997
RCS-1-14: MCP 2014 RCS-1 Reportable Concentrations Criteria effective April 25, 2014.
MCP 2014 S-1 Cleanup Criteria effective April 25, 2014; the lowest S-1/GW-X standard is shown.
**EPA-TCLP: EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria per 40CFR Part 261 as of September 10, 2015.

U - Not detected at the reported detection limit for the sample.
ND - Not detected.
E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
¹ - The laboratory reported two sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results and lowest detection limits have been tabulated. Refer to laboratory report for further detail.
² - The laboratory reported three sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results from the low-level analysis and detection limits from the high-level analysis have been tabulated due to significant internal standard issues with the low-level analysis. Refer to laboratory report for further detail.

Summary of Phase 2 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							GLX-TPW-609 (4)		GLX-TPW-610 (1) ¹		GLX-TPW-610 (3)		GLX-TPW-610 (7)		GLC-C14(A)-DC-VOC (10)		GLC-C14(B)-DC-VOC (12) ¹		
SAMPLING DATE							11/2/2019		11/2/2019		11/2/2019		11/2/2019		11/2/2019		11/2/2019		
LAB SAMPLE ID							L1952035-12		L1952035-14		L1952035-16		L1952035-18		L1952035-20		L1952035-23		
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		
SAMPLE DEPTH (ft.)																			
		CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual		
General Chemistry																			
	Solids, Total	NONE					%	92.7		91.4		96		94.4		80.7		91.2	
MCP Volatile Organics by EPA 5035																			
	Methylene chloride	75-09-2			0.1	NS	mg/kg	0.0032	U	0.0038	U	0.0024	U	0.003	U	0.0037	U	0.0026	U
	1,1-Dichloroethane	75-34-3			0.4	0.4	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U
	Chloroform	67-66-3			0.2	0.2	mg/kg	0.00096	U	0.0011	U	0.00071	U	0.00091	U	0.0011	U	0.00078	U
	Carbon tetrachloride	56-23-5			5	5	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U
	1,2-Dichloropropane	78-87-5			0.1	0.1	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U
	Dibromochloromethane	124-48-1			0.005	0.005	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U
	1,1,2-Trichloroethane	79-00-5			0.1	0.1	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U
	Tetrachloroethene	127-18-4			1	1	mg/kg	0.00032	U	0.00038	U	0.00024	U	0.0003	U	0.00037	U	0.00026	U
	Chlorobenzene	108-90-7			1	1	mg/kg	0.00032	U	0.00038	U	0.00024	U	0.0003	U	0.00037	U	0.00026	U
	Trichlorofluoromethane	75-69-4			1000	NS	mg/kg	0.0026	U	0.003	U	0.0019	U	0.0024	U	0.003	U	0.0021	U
	1,2-Dichloroethane	107-06-2			0.1	0.1	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U
	1,1,1-Trichloroethane	71-55-6			30	30	mg/kg	0.00032	U	0.00038	U	0.00024	U	0.0003	U	0.00037	U	0.00026	U
	Bromodichloromethane	75-27-4			0.1	0.1	mg/kg	0.00032	U	0.00038	U	0.00024	U	0.0003	U	0.00037	U	0.00026	U
	trans-1,3-Dichloropropene	10061-02-6			0.01	NS	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U
	cis-1,3-Dichloropropene	10061-01-5			0.01	NS	mg/kg	0.00032	U	0.00038	U	0.00024	U	0.0003	U	0.00037	U	0.00026	U
	1,3-Dichloropropene, Total	542-75-6			0.01	0.01	mg/kg	0.00032	U	0.00038	U	0.00024	U	0.0003	U	0.00037	U	0.00026	U
	1,1-Dichloropropene	563-58-6				NS	mg/kg	0.00032	U	0.00038	U	0.00024	U	0.0003	U	0.00037	U	0.00026	U
	Bromoform	75-25-2			0.1	0.1	mg/kg	0.0026	U	0.003	U	0.0019	U	0.0024	U	0.003	U	0.0021	U
	1,1,1,2,2-Tetrachloroethane	79-34-5			0.005	0.005	mg/kg	0.00032	U	0.00038	U	0.00024	U	0.0003	U	0.00037	U	0.00026	U
	Benzene	71-43-2			2	2	mg/kg	0.00032	U	0.00038	U	0.00024	U	0.0003	U	0.00037	U	0.00026	U
	Toluene	108-88-3			30	30	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U
	Ethylbenzene	100-41-4			40	40	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U
	Chloromethane	74-87-3			100	NS	mg/kg	0.0026	U	0.003	U	0.0019	U	0.0024	U	0.003	U	0.0021	U
	Bromomethane	74-83-9			0.5	0.5	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U
	Vinyl chloride	75-01-4			0.7	0.7	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U
	Chloroethane	75-00-3			100	NS	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U
	1,1-Dichloroethene	75-35-4			3	3	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U
	trans-1,2-Dichloroethene	156-60-5			1	1	mg/kg	0.00096	U	0.0011	U	0.00071	U	0.00091	U	0.0011	U	0.00078	U
	Trichloroethene	79-01-6			0.3	0.3	mg/kg	0.00032	U	0.00038	U	0.00024	U	0.0003	U	0.00037	U	0.00026	U
	1,2-Dichlorobenzene	95-50-1			9	9	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U
	1,3-Dichlorobenzene	541-73-1			3	3	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U
	1,4-Dichlorobenzene	106-46-7			0.7	0.7	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U
	Methyl tert butyl ether	1634-04-4			0.1	0.1	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U
	p/m-Xylene	179601-23-1			100	100	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U
	o-Xylene	95-47-6			100	100	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U
	Xylenes, Total	1330-20-7			100	100	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U
	cis-1,2-Dichloroethene	156-59-2			0.1	0.1	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U
	1,2-Dichloroethene, Total	540-59-0				NS	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U
	Dibromomethane	74-95-3			500	NS	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U
	1,2,3-Trichloropropane	96-18-4			100	NS	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U
	Styrene	100-42-5			3	3	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U
	Dichlorodifluoromethane	75-71-8			1000	NS	mg/kg	0.0064	U	0.0076	U	0.0048	U	0.0061	U	0.0074	U	0.0052	U
	Acetone	67-64-1			6	6	mg/kg	0.092		0.18		0.018		0.035		0.018	U	0.013	U
	Carbon disulfide	75-15-0			100	NS	mg/kg	0.0064	U	0.0076	U	0.0048	U	0.0061	U	0.0074	U	0.0052	U
	Methyl ethyl ketone	78-93-3			4	4	mg/kg	0.0064	U	0.018		0.0048	U	0.0061	U	0.0074	U	0.0052	U
	Methyl isobutyl ketone	108-10-1			0.4	0.4	mg/kg	0.0064	U	0.0076	U	0.0048	U	0.0061	U	0.0074	U	0.0052	U
	2-Hexanone	591-78-6			100	NS	mg/kg	0.0064	U	0.0076	U	0.0048	U	0.0061	U	0.0074	U	0.0052	U
	Bromochloromethane	74-97-5				NS	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U
	Tetrahydrofuran	109-99-9			500	NS	mg/kg	0.0026	U	0.003	U	0.0019	U	0.0024	U	0.003	U	0.0021	U

Summary of Phase 2 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							GLX-TPW-609 (4)		GLX-TPW-610 (1) ¹		GLX-TPW-610 (3)		GLX-TPW-610 (7)		GLC-C14(A)-DC-VOC (10)		GLC-C14(B)-DC-VOC (12) ¹			
SAMPLING DATE							11/2/2019		11/2/2019		11/2/2019		11/2/2019		11/2/2019		11/2/2019			
LAB SAMPLE ID							L1952035-12		L1952035-14		L1952035-16		L1952035-18		L1952035-20		L1952035-23			
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL		SOIL			
SAMPLE DEPTH (ft.)																				
		CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	
MCP Volatile Organics by EPA 5035						NS														
	2,2-Dichloropropane	594-20-7				NS	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U	
	1,2-Dibromoethane	106-93-4			0.1	NS	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U	
	1,3-Dichloropropane	142-28-9			500	0.1	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U	
	1,1,1,2-Tetrachloroethane	630-20-6			0.1	NS	mg/kg	0.00032	U	0.00038	U	0.00024	U	0.0003	U	0.00037	U	0.00026	U	
	Bromobenzene	108-86-1			100	NS	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U	
	n-Butylbenzene	104-51-8				NS	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U	
	sec-Butylbenzene	135-98-8				NS	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U	
	tert-Butylbenzene	98-06-6			100	NS	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U	
	o-Chlorotoluene	95-49-8			100	NS	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U	
	p-Chlorotoluene	106-43-4				NS	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U	
	1,2-Dibromo-3-chloropropane	96-12-8			10	30	mg/kg	0.0019	U	0.0023	U	0.0014	U	0.0018	U	0.0022	U	0.0016	U	
	Hexachlorobutadiene	87-68-3			30	NS	mg/kg	0.0026	U	0.003	U	0.0019	U	0.0024	U	0.003	U	0.0021	U	
	Isopropylbenzene	98-82-8			1000		mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U	
	p-Isopropyltoluene	99-87-6			100	NS	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U	
	Naphthalene	91-20-3			4	4	mg/kg	0.0026	U	0.003	U	0.0019	U	0.0024	U	0.003	U	0.0021	U	
	n-Propylbenzene	103-65-1			100	NS	mg/kg	0.00064	U	0.00076	U	0.00048	U	0.00061	U	0.00074	U	0.00052	U	
	1,2,3-Trichlorobenzene	87-61-6				NS	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U	
	1,2,4-Trichlorobenzene	120-82-1			2	2	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U	
	1,3,5-Trimethylbenzene	108-67-8			10	NS	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U	
	1,2,4-Trimethylbenzene	95-63-6			1000	NS	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U	
	Diethyl ether	60-29-7			100	NS	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U	
	Diisopropyl Ether	108-20-3			100	NS	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U	
	Ethyl-Tert-Butyl-Ether	637-92-3				NS	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U	
	Tertiary-Amyl Methyl Ether	994-05-8				NS	mg/kg	0.0013	U	0.0015	U	0.00095	U	0.0012	U	0.0015	U	0.001	U	
	1,4-Dioxane	123-91-1			0.2	0.2	mg/kg	0.051	U	0.061	U	0.038	U	0.049	U	0.059	U	0.042	U	

Yellow shading indicates detected result is equal to or above one or more of the listed criteria.
Gray shading indicates nondetect detection limit is above one or more of the listed criteria.
Bold typeface indicates detection above metiond detection limit.

MA-LLAND: Lined Landfill Limits current as of August, 1997
MA-ULAND: UnLined Landfill Limits current as of August, 1997
RCS-1-14: MCP 2014 RCS-1 Reportable Concentrations Criteria effective April 25, 2014.
MCP 2014 S-1 Cleanup Criteria effective April 25, 2014; the lowest S-1/GW-X standard is shown.
**EPA-TCLP: EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria per 40CFR Part 261 as of September 10, 2015.

U - Not detected at the reported detection limit for the sample.
ND - Not detected.
E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
¹ - The laboratory reported two sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results and lowest detection limits have been tabulated. Refer to laboratory report for further detail.
² - The laboratory reported three sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results from the low-level analysis and detection limits from the high-level analysis have been tabulated due to significant internal standard issues with the low-level analysis. Refer to laboratory report for further detail.

Summary of Phase 2 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							GLC-C13(A)-DC-VOC (9) ¹		GLC-C13(B)-DC-VOC (9) ²		GLX-TPW-403-VOC (3')		GLX-TPW-401-VOC (3')		GLX-TPW-402-VOC (4')	
SAMPLING DATE							11/2/2019		11/2/2019		11/6/2019		11/6/2019		11/6/2019	
LAB SAMPLE ID							L1952035-25		L1952035-27		L1952792-04		L1952792-05		L1952792-06	
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.)																
	CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
General Chemistry																
Solids, Total	NONE					%	82.9		86.6		88.1		90.6		84.9	
MCP Volatile Organics by EPA 5035																
Methylene chloride	75-09-2			0.1	NS	mg/kg	0.0051	U	0.3	U	0.0089	U	0.33	U	0.3	U
1,1-Dichloroethane	75-34-3			0.4	0.4	mg/kg	0.001	U	0.06	U	0.0018	U	0.065	U	0.06	U
Chloroform	67-66-3			0.2	0.2	mg/kg	0.0015	U	0.091	U	0.0027	U	0.098	U	0.09	U
Carbon tetrachloride	56-23-5			5	5	mg/kg	0.001	U	0.06	U	0.0018	U	0.065	U	0.06	U
1,2-Dichloropropane	78-87-5			0.1	0.1	mg/kg	0.001	U	0.06	U	0.0018	U	0.065	U	0.06	U
Dibromochloromethane	124-48-1			0.005	0.005	mg/kg	0.001	U	0.06	U	0.0018	U	0.065	U	0.06	U
1,1,2-Trichloroethane	79-00-5			0.1	0.1	mg/kg	0.001	U	0.06	U	0.0018	U	0.065	U	0.06	U
Tetrachloroethene	127-18-4			1	1	mg/kg	0.00051	U	0.03	U	0.00089	U	0.041		2	
Chlorobenzene	108-90-7			1	1	mg/kg	0.00051	U	0.03	U	0.00089	U	0.033	U	0.03	U
Trichlorofluoromethane	75-69-4			1000	NS	mg/kg	0.0041	U	0.24	U	0.0071	U	0.26	U	0.24	U
1,2-Dichloroethane	107-06-2			0.1	0.1	mg/kg	0.001	U	0.06	U	0.0018	U	0.065	U	0.06	U
1,1,1-Trichloroethane	71-55-6			30	30	mg/kg	0.00051	U	0.03	U	0.00089	U	0.033	U	0.03	U
Bromodichloromethane	75-27-4			0.1	0.1	mg/kg	0.00051	U	0.03	U	0.00089	U	0.033	U	0.03	U
trans-1,3-Dichloropropene	10061-02-6			0.01	NS	mg/kg	0.001	U	0.06	U	0.0018	U	0.065	U	0.06	U
cis-1,3-Dichloropropene	10061-01-5			0.01	NS	mg/kg	0.00051	U	0.03	U	0.00089	U	0.033	U	0.03	U
1,3-Dichloropropene, Total	542-75-6			0.01	0.01	mg/kg	0.00051	U	0.03	U	0.00089	U	0.033	U	0.03	U
1,1-Dichloropropene	563-58-6				NS	mg/kg	0.00051	U	0.03	U	0.00089	U	0.033	U	0.03	U
Bromoform	75-25-2			0.1	0.1	mg/kg	0.0041	U	0.24	U	0.0071	U	0.26	U	0.24	U
1,1,2,2-Tetrachloroethane	79-34-5			0.005	0.005	mg/kg	0.00051	U	0.03	U	0.00089	U	0.033	U	0.03	U
Benzene	71-43-2			2	2	mg/kg	0.00051	U	0.03	U	0.00089	U	0.033	U	0.03	U
Toluene	108-88-3			30	30	mg/kg	0.001	U	0.06	U	0.0018	U	0.065	U	0.06	U
Ethylbenzene	100-41-4			40	40	mg/kg	0.001	U	0.06	U	0.0018	U	0.065	U	0.06	U
Chloromethane	74-87-3			100	NS	mg/kg	0.0041	U	0.24	U	0.0071	U	0.26	U	0.24	U
Bromomethane	74-83-9			0.5	0.5	mg/kg	0.002	U	0.12	U	0.0036	U	0.13	U	0.12	U
Vinyl chloride	75-01-4			0.7	0.7	mg/kg	0.001	U	0.06	U	0.0023		0.065	U	0.06	U
Chloroethane	75-00-3			100	NS	mg/kg	0.002	U	0.12	U	0.0036	U	0.13	U	0.12	U
1,1-Dichloroethene	75-35-4			3	3	mg/kg	0.001	U	0.06	U	0.0018	U	0.065	U	0.06	U
trans-1,2-Dichloroethene	156-60-5			1	1	mg/kg	0.0015	U	0.091	U	0.0027	U	0.098	U	0.09	U
Trichloroethene	79-01-6			0.3	0.3	mg/kg	0.00051	U	0.03	U	0.00089	U	0.033	U	0.032	
1,2-Dichlorobenzene	95-50-1			9	9	mg/kg	0.002	U	0.12	U	0.0036	U	0.13	U	0.12	U
1,3-Dichlorobenzene	541-73-1			3	3	mg/kg	0.002	U	0.12	U	0.0036	U	0.13	U	0.12	U
1,4-Dichlorobenzene	106-46-7			0.7	0.7	mg/kg	0.002	U	0.12	U	0.0036	U	0.13	U	0.12	U
Methyl tert butyl ether	1634-04-4			0.1	0.1	mg/kg	0.002	U	0.12	U	0.0036	U	0.13	U	0.12	U
p/m-Xylene	179601-23-1			100	100	mg/kg	0.002	U	0.12	U	0.0036	U	0.13	U	0.12	U
o-Xylene	95-47-6			100	100	mg/kg	0.001	U	0.06	U	0.0018	U	0.065	U	0.06	U
Xylenes, Total	1330-20-7			100	100	mg/kg	0.001	U	0.06	U	0.0018	U	0.065	U	0.06	U
cis-1,2-Dichloroethene	156-59-2			0.1	0.1	mg/kg	0.001	U	0.06	U	0.0037		0.065	U	0.06	U
1,2-Dichloroethene, Total	540-59-0				NS	mg/kg	0.001	U	0.06	U	0.0037		0.065	U	0.06	U
Dibromomethane	74-95-3			500	NS	mg/kg	0.002	U	0.12	U	0.0036	U	0.13	U	0.12	U
1,2,3-Trichloropropane	96-18-4			100	NS	mg/kg	0.002	U	0.12	U	0.0036	U	0.13	U	0.12	U
Styrene	100-42-5			3	3	mg/kg	0.001	U	0.06	U	0.0018	U	0.065	U	0.06	U
Dichlorodifluoromethane	75-71-8			1000	NS	mg/kg	0.01	U	0.6	U	0.018	U	0.65	U	0.6	U
Acetone	67-64-1			6	6	mg/kg	0.49	E	0.16		0.044	U	0.65	U	0.6	U
Carbon disulfide	75-15-0			100	NS	mg/kg	0.01	U	0.6	U	0.018	U	0.65	U	0.6	U
Methyl ethyl ketone	78-93-3			4	4	mg/kg	0.01	U	0.6	U	0.018	U	0.65	U	0.6	U
Methyl isobutyl ketone	108-10-1			0.4	0.4	mg/kg	0.01	U	0.6	U	0.018	U	0.65	U	0.6	U
2-Hexanone	591-78-6			100	NS	mg/kg	0.01	U	0.6	U	0.018	U	0.65	U	0.6	U
Bromochloromethane	74-97-5				NS	mg/kg	0.002	U	0.12	U	0.0036	U	0.13	U	0.12	U
Tetrahydrofuran	109-99-9			500	NS	mg/kg	0.0041	U	0.24	U	0.0071	U	0.26	U	0.24	U

Summary of Phase 2 Soil Sample Analytical Results
MBTA Green Line Extension Project
Washington Street
Somerville, Massachusetts

LOCATION							GLC-C13(A)-DC-VOC (9) ¹			GLC-C13(B)-DC-VOC (9) ²		GLX-TPW-403-VOC (3')		GLX-TPW-401-VOC (3')		GLX-TPW-402-VOC (4')	
SAMPLING DATE							11/2/2019			11/2/2019		11/6/2019		11/6/2019		11/6/2019	
LAB SAMPLE ID							L1952035-25			L1952035-27		L1952792-04		L1952792-05		L1952792-06	
SAMPLE TYPE							SOIL			SOIL		SOIL		SOIL		SOIL	
SAMPLE DEPTH (ft.)																	
	CasNum	MA-LLAND	MA-ULAND	RCS-1-14	S-1	Units	Results	Qual		Results	Qual	Results	Qual	Results	Qual	Results	Qual
MCP Volatile Organics by EPA 5035							NS										
	2,2-Dichloropropane	594-20-7			NS	mg/kg	0.002	U		0.12	U	0.0036	U	0.13	U	0.12	U
	1,2-Dibromoethane	106-93-4		0.1	NS	mg/kg	0.001	U		0.06	U	0.0018	U	0.065	U	0.06	U
	1,3-Dichloropropane	142-28-9		500	0.1	mg/kg	0.002	U		0.12	U	0.0036	U	0.13	U	0.12	U
	1,1,1,2-Tetrachloroethane	630-20-6		0.1	NS	mg/kg	0.00051	U		0.03	U	0.00089	U	0.033	U	0.03	U
	Bromobenzene	108-86-1		100	NS	mg/kg	0.002	U		0.12	U	0.0036	U	0.13	U	0.12	U
	n-Butylbenzene	104-51-8			NS	mg/kg	0.001	U		0.06	U	0.0018	U	0.065	U	0.06	U
	sec-Butylbenzene	135-98-8			NS	mg/kg	0.001	U		0.06	U	0.0018	U	0.065	U	0.06	U
	tert-Butylbenzene	98-06-6		100	NS	mg/kg	0.002	U		0.12	U	0.0036	U	0.13	U	0.12	U
	o-Chlorotoluene	95-49-8		100	NS	mg/kg	0.002	U		0.12	U	0.0036	U	0.13	U	0.12	U
	p-Chlorotoluene	106-43-4			NS	mg/kg	0.002	U		0.12	U	0.0036	U	0.13	U	0.12	U
	1,2-Dibromo-3-chloropropane	96-12-8		10	30	mg/kg	0.0031	U		0.18	U	0.0053	U	0.2	U	0.18	U
	Hexachlorobutadiene	87-68-3		30	NS	mg/kg	0.0041	U		0.24	U	0.0071	U	0.26	U	0.24	U
	Isopropylbenzene	98-82-8		1000		mg/kg	0.001	U		0.06	U	0.0018	U	0.065	U	0.06	U
	p-Isopropyltoluene	99-87-6		100	NS	mg/kg	0.001	U		0.06	U	0.0018	U	0.065	U	0.06	U
	Naphthalene	91-20-3		4	4	mg/kg	0.0041	U		0.24	U	0.0071	U	0.26	U	0.24	U
	n-Propylbenzene	103-65-1		100	NS	mg/kg	0.001	U		0.06	U	0.0018	U	0.065	U	0.06	U
	1,2,3-Trichlorobenzene	87-61-6			NS	mg/kg	0.002	U		0.12	U	0.0036	U	0.13	U	0.12	U
	1,2,4-Trichlorobenzene	120-82-1		2	2	mg/kg	0.002	U		0.12	U	0.0036	U	0.13	U	0.12	U
	1,3,5-Trimethylbenzene	108-67-8		10	NS	mg/kg	0.002	U		0.12	U	0.0036	U	0.13	U	0.12	U
	1,2,4-Trimethylbenzene	95-63-6		1000	NS	mg/kg	0.002	U		0.12	U	0.0036	U	0.13	U	0.12	U
	Diethyl ether	60-29-7		100	NS	mg/kg	0.002	U		0.12	U	0.0036	U	0.13	U	0.12	U
	Diisopropyl Ether	108-20-3		100	NS	mg/kg	0.002	U		0.12	U	0.0036	U	0.13	U	0.12	U
	Ethyl-Tert-Butyl-Ether	637-92-3			NS	mg/kg	0.002	U		0.12	U	0.0036	U	0.13	U	0.12	U
	Tertiary-Amyl Methyl Ether	994-05-8			NS	mg/kg	0.002	U		0.12	U	0.0036	U	0.13	U	0.12	U
	1,4-Dioxane	123-91-1		0.2	0.2	mg/kg	0.082	U		4.8	U	0.14	U	5.2	U	4.8	U

Yellow shading indicates detected result is equal to or above one or more of the listed criteria.
Gray shading indicates nondetect detection limit is above one or more of the listed criteria.
Bold typeface indicates detection above metiond detection limit.

MA-LLAND: Lined Landfill Limits current as of August, 1997
MA-ULAND: UnLined Landfill Limits current as of August, 1997
RCS-1-14: MCP 2014 RCS-1 Reportable Concentrations Criteria effective April 25, 2014.
MCP 2014 S-1 Cleanup Criteria effective April 25, 2014; the lowest S-1/GW-X standard is shown.
**EPA-TCLP: EPA Toxicity Characteristic (TCLP) Regulatory Levels Criteria per 40CFR Part 261 as of September 10, 2015.

U - Not detected at the reported detection limit for the sample.
ND - Not detected.
E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
¹ - The laboratory reported two sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results and lowest detection limits have been tabulated. Refer to laboratory report for further detail.
² - The laboratory reported three sets of VOC results due to internal standard and/or surrogate nonconformances.
The highest detected results from the low-level analysis and detection limits from the high-level analysis have been tabulated due to significant internal standard issues with the low-level analysis. Refer to laboratory report for further detail.

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth: Sample Date:						GLC-WASH(A)		GLC-WASH(B)		GLX-TPW-401		GLX-TPW-401A		GLX-TPW-402		GLX-TPW-402A		GLX-TPW-403		GLX-TPW-403A		GLX-TPW-404		GLX-TPW-405		GLX-TPW-406				GLX-TPW-407		GLX-TPW-408	
						N/A		N/A		0-3/3 ft		0-1 ft		0-6/4 ft		0-4 ft		0-3/3 ft		0-3 ft		0-3/2 ft		0-3/2 ft		0-2/1 ft		1 ft		0-5/3 ft		0-4/3 ft	
						02/25/2020		02/25/2020		11/06/2019		03/01/2020		11/06/2019		03/09/2020		11/06/2019		03/01/2020		02/25/2020		02/25/2020		02/26/2020		02/26/2020		02/26/2020		02/26/2020	
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**																					Low VOC		High VOC					
VOCs																																	
	Methylene chloride	mg/kg	0.1	NS	NS	NA		NA		0.33	U	NA		0.3	U	NA		0.0089	U	NA		0.0036	U	0.0037	U	0.0040	U	0.22	U	0.0030	U	0.0045	U
	1,1-Dichloroethane	mg/kg	0.4	NS	NS	NA		NA		0.065	U	NA		0.06	U	NA		0.0018	U	NA		0.00071	U	0.00073	U	0.00080	U	0.044	U	0.00060	U	0.00090	U
	Chloroform	mg/kg	0.2	NS	NS	NA		NA		0.098	U	NA		0.09	U	NA		0.0027	U	NA		0.0011	U	0.0011	U	0.0012	U	0.066	U	0.00091	U	0.0014	U
	Carbon tetrachloride	mg/kg	5	NS	NS	NA		NA		0.065	U	NA		0.06	U	NA		0.0018	U	NA		0.00071	U	0.00073	U	0.00080	U	0.044	U	0.00060	U	0.00090	U
	1,2-Dichloropropane	mg/kg	0.1	NS	NS	NA		NA		0.065	U	NA		0.06	U	NA		0.0018	U	NA		0.00071	U	0.00073	U	0.00080	U	0.044	U	0.00060	U	0.00090	U
	Dibromochloromethane	mg/kg	0.005	NS	NS	NA		NA		0.065	U	NA		0.06	U	NA		0.0018	U	NA		0.00071	U	0.00073	U	0.00080	U	0.044	U	0.00060	U	0.00090	U
	1,1,2-Trichloroethane	mg/kg	0.1	NS	NS	NA		NA		0.065	U	NA		0.06	U	NA		0.0018	U	NA		0.00071	U	0.00073	U	0.00080	U	0.044	U	0.00060	U	0.00090	U
	Tetrachloroethene	mg/kg	1	NS	NS	NA		NA		0.041		NA		2		NA		0.00089	U	NA		0.012		0.0011		0.013		0.14		0.0096		0.14	
	Chlorobenzene	mg/kg	1	NS	NS	NA		NA		0.033	U	NA		0.03	U	NA		0.00089	U	NA		0.00036	U	0.00037	U	0.00040	U	0.022	U	0.00030	U	0.00045	U
	Trichlorofluoromethane	mg/kg	1,000	NS	NS	NA		NA		0.26	U	NA		0.24	U	NA		0.0071	U	NA		0.0028	U	0.0029	U	0.0032	U	0.18	U	0.0024	U	0.0036	U
	1,2-Dichloroethane	mg/kg	0.1	NS	NS	NA		NA		0.065	U	NA		0.06	U	NA		0.0018	U	NA		0.00071	U	0.00073	U	0.00080	U	0.044	U	0.00060	U	0.00090	U
	1,1,1-Trichloroethane	mg/kg	30	NS	NS	NA		NA		0.033	U	NA		0.03	U	NA		0.00089	U	NA		0.00036	U	0.00037	U	0.00040	U	0.022	U	0.00030	U	0.0018	
	Bromodichloromethane	mg/kg	0.1	NS	NS	NA		NA		0.033	U	NA		0.03	U	NA		0.00089	U	NA		0.00036	U	0.00037	U	0.00040	U	0.022	U	0.00030	U	0.00045	U
	trans-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		NA		0.065	U	NA		0.06	U	NA		0.0018	U	NA		0.00071	U	0.00073	U	0.00080	U	0.044	U	0.00060	U	0.00090	U
	cis-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		NA		0.033	U	NA		0.03	U	NA		0.00089	U	NA		0.00036	U	0.00037	U	0.00040	U	0.022	U	0.00030	U	0.00045	U
	1,3-Dichloropropene, Total	mg/kg	0.01	NS	NS	NA		NA		0.033	U	NA		0.03	U	NA		0.00089	U	NA		0.00036	U	0.00037	U	0.00040	U	0.022	U	0.00030	U	0.00045	U
	1,1-Dichloropropene	mg/kg	0.01	NS	NS	NA		NA		0.033	U	NA		0.03	U	NA		0.00089	U	NA		0.00036	U	0.00037	U	0.00040	U	0.022	U	0.00030	U	0.00045	U
	Bromoform	mg/kg	0.1	NS	NS	NA		NA		0.26	U	NA		0.24	U	NA		0.0071	U	NA		0.0028	U	0.0029	U	0.0032	U	0.18	U	0.0024	U	0.0036	U
	1,1,2,2-Tetrachloroethane	mg/kg	0.005	NS	NS	NA		NA		0.033	U	NA		0.03	U	NA		0.00089	U	NA		0.00036	U	0.00037	U	0.00040	U	0.022	U	0.00030	U	0.00045	U
	Benzene	mg/kg	2	NS	NS	NA		NA		0.033	U	NA		0.03	U	NA		0.00089	U	NA		0.00036	U	0.00037	U	0.00040	U	0.022	U	0.00030	U	0.021	
	Toluene	mg/kg	30	NS	NS	NA		NA		0.065	U	NA		0.06	U	NA		0.0018	U	NA		0.00071	U	0.00073	U	0.0011		0.044	U	0.00060	U	0.00090	U
	Ethylbenzene	mg/kg	40	NS	NS	NA		NA		0.065	U	NA		0.06	U	NA		0.0018	U	NA		0.00071	U	0.00073	U	0.00080	U	0.044	U	0.00060	U	0.00090	U
	Chloromethane	mg/kg	100	NS	NS	NA		NA		0.26	U	NA		0.24	U	NA		0.0071	U	NA		0.0028	U	0.0029	U	0.0032	U	0.18	U	0.0024	U	0.0036	U
	Bromomethane	mg/kg	0.5	NS	NS	NA		NA		0.13	U	NA		0.12	U	NA		0.0036	U	NA		0.0014	U	0.0015	U	0.0016	U	0.088	U	0.0012	U	0.0018	U
	Vinyl chloride	mg/kg	0.7	NS	NS	NA		NA		0.065	U	NA		0.06	U	NA		0.0023		NA		0.00071	U	0.00073	U	0.00080	U	0.044	U	0.00060	U	0.00090	U
	Chloroethane	mg/kg	100	NS	NS	NA		NA		0.13	U	NA		0.12	U	NA		0.0036	U	NA		0.0014	U	0.0015	U	0.0016	U	0.088	U	0.0012	U	0.0018	U
	1,1-Dichloroethene	mg/kg	3	NS	NS	NA		NA		0.065	U	NA		0.06	U	NA		0.0018	U	NA		0.00071	U	0.00073	U	0.00080	U	0.044	U	0.00060	U	0.00090	U
	trans-1,2-Dichloroethene	mg/kg	1	NS	NS	NA		NA		0.098	U	NA		0.09	U	NA		0.0027	U	NA		0.0011	U	0.0011	U	0.0012	U	0.066	U	0.00091	U	0.0014	U
	Trichloroethene	mg/kg	0.3	NS	NS	NA		NA		0.033	U	NA		0.032		NA		0.00089	U	NA		0.00050		0.00037	U	0.0011		0.022	U	0.00083		0.014	
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	NA		NA		0.13	U	NA		0.12	U	NA		0.0036	U	NA		0.0014	U	0.0015	U	0.0016	U	0.088	U	0.0012	U	0.0018	U
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	NA		NA		0.13	U	NA		0.12	U	NA		0.0036	U	NA		0.0014	U	0.0015	U	0.0016	U	0.088	U	0.0012	U	0.0018	U
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	NA		NA		0.13	U	NA		0.12	U	NA		0.0036	U	NA		0.0014	U	0.0015	U	0.0016	U	0.088	U	0.0012	U	0.0018	U
	Methyl tert butyl ether	mg/kg	0.1	NS	NS	NA		NA		0.13	U	NA		0.12	U	NA		0.0036	U	NA		0.0014	U	0.0015	U	0.0016	U	0.088	U	0.0012	U	0.0018	U
	p/m-Xylene	mg/kg	100	NS	NS	NA		NA		0.13	U	NA		0.12</																			

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth^: Sample Date:						GLC-WASH(A)	GLC-WASH(B)	GLX-TPW-401	GLX-TPW-401A	GLX-TPW-402	GLX-TPW-402A	GLX-TPW-403	GLX-TPW-403A	GLX-TPW-404	GLX-TPW-405	GLX-TPW-406		GLX-TPW-407	GLX-TPW-408
						02/25/2020	02/25/2020	11/06/2019	03/01/2020	11/06/2019	03/09/2020	11/06/2019	03/01/2020	02/25/2020	02/25/2020	0-2/1 ft	1 ft	0-5/3 ft	0-4/3 ft
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**											Low VOC	High VOC		
	Naphthalene	mg/kg	4	NS	NS	NA	NA	0.26 U	NA	0.24 U	NA	0.0071 U	NA	0.0028 U	0.0029 U	0.0032 U	0.18 U	0.0024 U	0.0036 U
	n-Propylbenzene	mg/kg	100	NS	NS	NA	NA	0.065 U	NA	0.06 U	NA	0.0018 U	NA	0.00071 U	0.00073 U	0.00080 U	0.044 U	0.00060 U	0.00090 U
	1,2,3-Trichlorobenzene	mg/kg	NS	NS	NS	NA	NA	0.13 U	NA	0.12 U	NA	0.0036 U	NA	0.0014 U	0.0015 U	0.0016 U	0.088 U	0.0012 U	0.0018 U
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	NA	NA	0.13 U	NA	0.12 U	NA	0.0036 U	NA	0.0014 U	0.0015 U	0.0016 U	0.088 U	0.0012 U	0.0018 U
	1,3,5-Trimethylbenzene	mg/kg	10	NS	NS	NA	NA	0.13 U	NA	0.12 U	NA	0.0036 U	NA	0.0014 U	0.0015 U	0.0016 U	0.088 U	0.0012 U	0.0018 U
	1,2,4-Trimethylbenzene	mg/kg	1,000	NS	NS	NA	NA	0.13 U	NA	0.12 U	NA	0.0036 U	NA	0.0014 U	0.0015 U	0.0016 U	0.088 U	0.0012 U	0.0018 U
	Ethyl ether	mg/kg	100	NS	NS	NA	NA	0.13 U	NA	0.12 U	NA	0.0036 U	NA	0.0014 U	0.0015 U	0.0016 U	0.088 U	0.0012 U	0.0018 U
	Isopropyl Ether	mg/kg	100	NS	NS	NA	NA	0.13 U	NA	0.12 U	NA	0.0036 U	NA	0.0014 U	0.0015 U	0.0016 U	0.088 U	0.0012 U	0.0018 U
	Ethyl-Tert-Butyl-Ether	mg/kg	NS	NS	NS	NA	NA	0.13 U	NA	0.12 U	NA	0.0036 U	NA	0.0014 U	0.0015 U	0.0016 U	0.088 U	0.0012 U	0.0018 U
	Tertiary-Amyl Methyl Ether	mg/kg	NS	NS	NS	NA	NA	0.13 U	NA	0.12 U	NA	0.0036 U	NA	0.0014 U	0.0015 U	0.0016 U	0.088 U	0.0012 U	0.0018 U
	1,4-Dioxane	mg/kg	0.2	NS	NS	NA	NA	5.2 U	NA	4.8 U	NA	0.14 U	NA	0.057 U	0.059 U	0.064 U	3.5 U	0.048 U	0.072 U
	Total VOCs	mg/kg	N/A	4	10	NA	NA	0.041	NA	2.03	NA	0.006	NA	0.013	0.001	0.325	0.140	0.061	0.190
SVOCs																			
	Acenaphthene	mg/kg	4	NS	NS	1.4 U	2	NA	0.14 U	NA	0.15 U	NA	0.15 U	0.15 U	0.14 U	0.14 U	NA	0.14 U	0.37
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.19 U
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.75 U	0.76 U	NA	0.076 U	NA	0.077 U	NA	0.081 U	0.077 U	0.075 U	0.075 U	NA	0.072 U	0.079 U
	Bis(2-chloroethyl)ether	mg/kg	0.7	NS	NS	0.75 U	0.76 U	NA	0.076 U	NA	0.077 U	NA	0.081 U	0.077 U	0.075 U	0.075 U	NA	0.072 U	0.079 U
	2-Chloronaphthalene	mg/kg	1,000	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.19 U
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.19 U
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.19 U
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	0.75 U	0.76 U	NA	0.076 U	NA	0.077 U	NA	0.081 U	0.077 U	0.075 U	0.075 U	NA	0.072 U	0.079 U
	3,3'-Dichlorobenzidine	mg/kg	3	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.19 U
	2,4-Dinitrotoluene	mg/kg	0.7	NS	NS	0.75 U	0.76 U	NA	0.076 U	NA	0.077 U	NA	0.081 U	0.077 U	0.075 U	0.075 U	NA	0.072 U	0.079 U
	2,6-Dinitrotoluene	mg/kg	100	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.19 U
	Azobenzene	mg/kg	NS	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.19 U
	Fluoranthene	mg/kg	1,000	NS	NS	16	17	NA	0.12	NA	0.21	NA	0.12 U	0.55	0.11 U	0.11 U	NA	0.1 U	8.8
	4-Bromophenyl phenyl ether	mg/kg	100	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.19 U
	Bis(2-chloroisopropyl)ether	mg/kg	0.7	NS	NS	0.75 U	0.76 U	NA	0.076 U	NA	0.077 U	NA	0.081 U	0.077 U	0.075 U	0.075 U	NA	0.072 U	0.079 U
	Bis(2-chloroethoxy)methane	mg/kg	500	NS	NS	1.9 U	2 U	NA	0.2 U	NA	0.2 U	NA	0.21 U	0.2 U	0.19 U	0.19 U	NA	0.18 U	0.2 U
	Hexachlorobutadiene	mg/kg	30	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.19 U
	Hexachloroethane	mg/kg	0.7	NS	NS	0.75 U	0.76 U	NA	0.076 U	NA	0.077 U	NA	0.081 U	0.077 U	0.075 U	0.075 U	NA	0.072 U	0.079 U
	Isophorone	mg/kg	100	NS	NS	1.6 U	1.6 U	NA	0.16 U	NA	0.16 U	NA	0.17 U	0.16 U	0.16 U	0.16 U	NA	0.15 U	0.17 U
	Naphthalene	mg/kg	4	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.2	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.68
	Nitrobenzene	mg/kg	500	NS	NS	1.6 U	1.6 U	NA	0.16 U	NA	0.16 U	NA	0.17 U	0.16 U	0.16 U	0.16 U	NA	0.15 U	0.17 U
	Bis(2-Ethylhexyl)phthalate	mg/kg	90	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.19 U
	Butyl benzyl phthalate	mg/kg	100	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.19 U
	Di-n-butylphthalate	mg/kg	50	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.19 U
	Di-n-octylphthalate	mg/kg	1,000	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.19 U
	Diethyl phthalate	mg/kg	10	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.19 U
	Dimethyl phthalate	mg/kg	0.7	NS	NS	0.75 U	0.76 U	NA	0.076 U	NA	0.077 U	NA	0.081 U	0.077 U	0.075 U	0.075 U	NA	0.072 U	0.079 U
	Benzo(a)anthracene	mg/kg	7	NS	NS	7	7.2	NA	0.11 U	NA	0.13	NA	0.12 U	0.36	0.11 U	0.11 U	NA	0.1 U	5.9
	Benzo(a)pyrene	mg/kg	2	NS	NS	6.3	5.8	NA	0.14 U	NA	0.15 U	NA	0.15 U	0.45	0.14 U	0.14 U	NA	0.14 U	6.2
	Benzo(b)fluoranthene	mg/kg	7	NS	NS	8.7	8.3	NA	0.11	NA	0.15	NA	0.12 U	0.6	0.11 U	0.11 U	NA	0.1 U	7.3
	Benzo(k)fluoranthene	mg/kg	70	NS	NS	2.8	2.5	NA	0.11 U	NA	0.11 U	NA	0.12 U	0.18	0.11 U	0.11 U	NA	0.1 U	2.3
	Chrysene	mg/kg	70	NS	NS	6.6	7.1	NA	0.11 U	NA	0.11	NA	0.12 U	0.4	0.11 U	0.11 U	NA	0.1 U	5.2
	Acenaphthylene	mg/kg	1	NS	NS	1.4 U	1.4 U	NA	0.14 U	NA	0.15 U	NA	0.15 U	0.21	0.14 U	0.14 U	NA	0.14 U	0.88
	Anthracene	mg/kg	1,000	NS	NS	3.5	4.2	NA	0.11 U	NA	0.11 U	NA	0.12 U	0.19	0.11 U	0.11 U	NA	0.1 U	1.9
	Benzo(ghi)perylene	mg/kg	1,000	NS	NS	4	3.1	NA	0.14 U	NA	0.15 U	NA	0.15 U	0.46	0.14 U	0.14 U	NA	0.14 U	3.4
	Fluorene	mg/kg	1,000	NS	NS	1.8 U	2.2	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.62
	Phenanthrene	mg/kg	10	NS	NS	11	20	NA	0.11 U	NA	0.11 U	NA	0.12 U	0.3	0.11 U	0.11 U	NA	0.1 U	5.8
	Dibenzo(a,h)anthracene	mg/kg	0.7	NS	NS	0.85	0.78	NA	0.076 U	NA	0.077 U	NA	0.081 U	0.094	0.075 U	0.075 U	NA	0.072 U	0.84
	Indeno(1,2,3-cd)Pyrene	mg/kg	7	NS	NS	4.2	3.4	NA	0.14 U	NA	0.15 U	NA	0.15 U	0.38	0.14 U	0.14 U	NA	0.14 U	3.8
	Pyrene	mg/kg	1,000	NS	NS	13	15	NA	0.12	NA	0.2	NA	0.12	0.56	0.11 U	0.11 U	NA	0.1 U	7.6
	Aniline	mg/kg	1,000	NS	NS	2.2 U	2.2 U	NA	0.22 U	NA	0.22 U	NA	0.23 U	0.22 U	0.22 U	0.21 U	NA	0.2 U	0.23 U
	4-Chloroaniline	mg/kg	1	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.19 U
	Dibenzofuran	mg/kg	100	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.48
	2-Methylnaphthalene	mg/kg	0.7	NS	NS	0.75 U	0.76 U	NA	0.076 U	NA	0.077 U	NA	0.081 U	0.16	0.075 U	0.075 U	NA	0.072 U	0.23
	Acetophenone	mg/kg	1,000	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.19 U
	2,4,6-Trichlorophenol	mg/kg	0.7	NS	NS	0.75 U	0.76 U	NA	0.076 U	NA	0.077 U	NA	0.081 U	0.077 U	0.075 U	0.075 U	NA	0.072 U	0.079 U
	2-Chlorophenol	mg/kg	0.7	NS	NS	0.75 U	0.76 U	NA	0.076 U	NA	0.077 U	NA	0.081 U	0.077 U	0.075 U	0.075 U	NA	0.072 U	0.079 U
	2,4-Dichlorophenol	mg/kg	0.7	NS	NS	0.75 U	0.76 U	NA	0.076 U	NA	0.077 U	NA	0.081 U	0.077 U	0.075 U	0.075 U	NA	0.072 U	0.079 U
	2,4-Dimethylphenol	mg/kg	0.7	NS	NS	0.75 U	0.76 U	NA	0.076 U	NA	0.077 U	NA	0.081 U	0.077 U	0.075 U	0.075 U	NA	0.072 U	0.079 U
	2-Nitrophenol	mg/kg	100	NS	NS	3.9 U	3.9 U	NA	0.39 U	NA	0.39 U	NA	0.42 U	0.4 U	0.39 U	0.39 U	NA	0.37 U	0.41 U
	4-Nitrophenol	mg/kg	100	NS	NS	2.5 U	2.5 U	NA	0.25 U	NA	0.26 U	NA	0.27 U	0.26 U	0.25 U	0.25 U	NA	0.24 U	0.26 U

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth^: Sample Date:						GLC-WASH(A)	GLC-WASH(B)	GLX-TPW-401	GLX-TPW-401A	GLX-TPW-402	GLX-TPW-402A	GLX-TPW-403	GLX-TPW-403A	GLX-TPW-404	GLX-TPW-405	GLX-TPW-406		GLX-TPW-407	GLX-TPW-408
						02/25/2020	02/25/2020	0-3/3 ft 11/06/2019	0-1 ft 03/01/2020	0-6/4 ft 11/06/2019	0-4 ft 03/09/2020	0-3/3 ft 11/06/2019	0-3 ft 03/01/2020	0-3/2 ft 02/25/2020	0-3/2 ft 02/25/2020	0-2/1 ft 02/26/2020	1 ft 02/26/2020	0-5/3 ft 02/26/2020	0-4/3 ft 02/26/2020
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**											Low VOC	High VOC		
	2,4-Dinitrophenol	mg/kg	3	NS	NS	8.6 U	8.7 U	NA	0.87 U	NA	0.88 U	NA	0.93 U	0.88 U	0.86 U	0.86 U	NA	0.82 U	0.9 U
	Pentachlorophenol	mg/kg	3	NS	NS	3.6 U	3.6 U	NA	0.36 U	NA	0.36 U	NA	0.39 U	0.37 U	0.36 U	0.36 U	NA	0.34 U	0.38 U
	Phenol	mg/kg	1	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.19 U
	2-Methylphenol	mg/kg	500	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.19 U
	3-Methylphenol/4-Methylphenol	mg/kg	NS	NS	NS	2.6 U	2.6 U	NA	0.26 U	NA	0.26 U	NA	0.28 U	0.26 U	0.26 U	0.26 U	NA	0.24 U	0.27 U
	2,4,5-Trichlorophenol	mg/kg	4	NS	NS	1.8 U	1.8 U	NA	0.18 U	NA	0.18 U	NA	0.19 U	0.18 U	0.18 U	0.18 U	NA	0.17 U	0.19 U
	Pyridine	mg/kg	500	NS	NS	1.9 U	2 U	NA	0.2 U	NA	0.2 U	NA	0.21 U	0.2 U	0.19 U	0.19 U	NA	0.18 U	0.2 U
	Total SVOCs	mg/kg	N/A	100	100	84.0	98.6	NA	0.350	NA	0.80	NA	0.320	4.89	ND	ND	NA	ND	62.3
Pesticides																			
	Delta-BHC	mg/kg	10	NS	NS	NA	NA	NA	NA	NA	0.00170 U	NA	NA	0.00178 U	0.00172 U	0.00169 U	NA	0.00166 U	0.00177 U
	Lindane	mg/kg	0.003	NS	NS	NA	NA	NA	NA	NA	0.000566 U	NA	NA	0.000594 U	0.000573 U	0.000563 U	NA	0.000552 U	0.000590 U
	Alpha-BHC	mg/kg	50	NS	NS	NA	NA	NA	NA	NA	0.000707 U	NA	NA	0.000742 U	0.000716 U	0.000704 U	NA	0.000690 U	0.000738 U
	Beta-BHC	mg/kg	10	NS	NS	NA	NA	NA	NA	NA	0.00178 U	NA	NA	0.00178 U	0.00172 U	0.00169 U	NA	0.00166 U	0.00177 U
	Heptachlor	mg/kg	0.3	NS	NS	NA	NA	NA	NA	NA	0.000849 U	NA	NA	0.000890 U	0.000859 U	0.000845 U	NA	0.000828 U	0.000885 U
	Aldrin	mg/kg	0.08	NS	NS	NA	NA	NA	NA	NA	0.00170 U	NA	NA	0.00178 U	0.00172 U	0.00169 U	NA	0.00166 U	0.00177 U
	Heptachlor epoxide	mg/kg	0.1	NS	NS	NA	NA	NA	NA	NA	0.00318 U	NA	NA	0.00334 U	0.00322 U	0.00317 U	NA	0.00310 U	0.00332 U
	Endrin	mg/kg	10	NS	NS	NA	NA	NA	NA	NA	0.000707 U	NA	NA	0.000742 U	0.000716 U	0.000704 U	NA	0.000690 U	0.00125 IP
	Endrin ketone	mg/kg	10	NS	NS	NA	NA	NA	NA	NA	0.00170 U	NA	NA	0.00178 U	0.00172 U	0.00169 U	NA	0.00166 U	0.00177 U
	Dieldrin	mg/kg	0.08	NS	NS	NA	NA	NA	NA	NA	0.00106 U	NA	NA	0.00111 U	0.00107 U	0.00106 U	NA	0.00104 U	0.00111 U
	4,4'-DDE	mg/kg	6	NS	NS	NA	NA	NA	NA	NA	0.00170 U	NA	NA	0.00178 U	0.00172 U	0.00169 U	NA	0.00166 U	0.00177 U
	4,4'-DDD	mg/kg	8	NS	NS	NA	NA	NA	NA	NA	0.00170 U	NA	NA	0.00178 U	0.00172 U	0.00169 U	NA	0.00166 U	0.00177 U
	4,4'-DDT	mg/kg	6	NS	NS	NA	NA	NA	NA	NA	0.00318 U	NA	NA	0.00334 U	0.00322 U	0.00317 U	NA	0.00310 U	0.00332 U
	Endosulfan I	mg/kg	0.5	NS	NS	NA	NA	NA	NA	NA	0.00170 U	NA	NA	0.00178 U	0.00172 U	0.00169 U	NA	0.00166 U	0.00177 U
	Endosulfan II	mg/kg	0.5	NS	NS	NA	NA	NA	NA	NA	0.00170 U	NA	NA	0.00178 U	0.00172 U	0.00169 U	NA	0.00166 U	0.00177 U
	Endosulfan sulfate	mg/kg	0.5	NS	NS	NA	NA	NA	NA	NA	0.000707 U	NA	NA	0.000742 U	0.000716 U	0.000704 U	NA	0.000690 U	0.000738 U
	Methoxychlor	mg/kg	200	NS	NS	NA	NA	NA	NA	NA	0.00318 U	NA	NA	0.00334 U	0.00322 U	0.00317 U	NA	0.00310 U	0.00332 U
	Chlordane	mg/kg	0.7	NS	NS	NA	NA	NA	NA	NA	0.0141 U	NA	NA	0.0148 U	0.0143 U	0.0141 U	NA	0.0138 U	0.0148 U
	Hexachlorobenzene	mg/kg	0.7	NS	NS	NA	NA	NA	NA	NA	0.00170 U	NA	NA	0.00178 U	0.00172 U	0.00169 U	NA	0.00166 U	0.00177 U
Herbicides																			
	MCPP	mg/kg	NS	NS	NS	NA	NA	NA	NA	NA	3.7 U	NA	NA	3.7 U	3.6 U	3.6 U	NA	3.5 U	3.7 U
	MCPA	mg/kg	100	NS	NS	NA	NA	NA	NA	NA	3.7 U	NA	NA	3.7 U	3.6 U	3.6 U	NA	3.5 U	3.7 U
	Dalapon	mg/kg	1,000	NS	NS	NA	NA	NA	NA	NA	0.037 U	NA	NA	0.037 U	0.036 U	0.036 U	NA	0.035 U	0.037 U
	Dicamba	mg/kg	500	NS	NS	NA	NA	NA	NA	NA	0.037 U	NA	NA	0.037 U	0.036 U	0.036 U	NA	0.035 U	0.037 U
	Dichloroprop	mg/kg	NS	NS	NS	NA	NA	NA	NA	NA	0.037 U	NA	NA	0.037 U	0.036 U	0.036 U	NA	0.035 U	0.037 U
	2,4-D	mg/kg	100	NS	NS	NA	NA	NA	NA	NA	0.037 U	NA	NA	0.037 U	0.036 U	0.036 U	NA	0.035 U	0.037 U
	2,4-DB	mg/kg	100	NS	NS	NA	NA	NA	NA	NA	0.037 U	NA	NA	0.037 U	0.036 U	0.036 U	NA	0.035 U	0.037 U
	2,4,5-T	mg/kg	100	NS	NS	NA	NA	NA	NA	NA	0.037 U	NA	NA	0.037 U	0.036 U	0.036 U	NA	0.035 U	0.037 U
	2,4,5-TP (Silvex)	mg/kg	100	NS	NS	NA	NA	NA	NA	NA	0.037 U	NA	NA	0.037 U	0.036 U	0.036 U	NA	0.035 U	0.037 U
PCB Aroclors																			
	Aroclor-1016	mg/kg	1	NS	NS	0.0348 U	0.0360 U	0.0350 U	0.0358 U	0.0385 U	NA	0.0393 U	0.0373 U	0.0367 U	0.0349 U	0.0356 U	NA	0.0342 U	0.0373 U
	Aroclor-1221	mg/kg	1	NS	NS	0.0348 U	0.0360 U	0.0350 U	0.0358 U	0.0385 U	NA	0.0393 U	0.0373 U	0.0367 U	0.0349 U	0.0356 U	NA	0.0342 U	0.0373 U
	Aroclor-1232	mg/kg	1	NS	NS	0.0348 U	0.0360 U	0.0350 U	0.0358 U	0.0385 U	NA	0.0393 U	0.0373 U	0.0367 U	0.0349 U	0.0356 U	NA	0.0342 U	0.0373 U
	Aroclor-1242	mg/kg	1	NS	NS	0.0348 U	0.0360 U	0.0350 U	0.0358 U	0.0385 U	NA	0.0393 U	0.0373 U	0.0367 U	0.0349 U	0.0356 U	NA	0.0342 U	0.0373 U
	Aroclor-1248	mg/kg	1	NS	NS	0.0348 U	0.0360 U	0.0350 U	0.0358 U	0.0385 U	NA	0.0393 U	0.0373 U	0.0367 U	0.0349 U	0.0356 U	NA	0.0342 U	0.0373 U
	Aroclor-1254	mg/kg	1	NS	NS	0.0348 U	0.0360 U	0.0350 U	0.0358 U	0.0385 U	NA	0.0393 U	0.0373 U	0.0367 U	0.0349 U	0.0356 U	NA	0.0342 U	0.0373 U
	Aroclor-1260	mg/kg	1	NS	NS	0.0348 U	0.0360 U	0.0350 U	0.0358 U	0.0385 U	NA	0.0393 U	0.0373 U	0.0367 U	0.0349 U	0.0356 U	NA	0.0342 U	0.0373 U
	Aroclor-1262	mg/kg	1	NS	NS	0.0348 U	0.0360 U	0.0350 U	0.0358 U	0.0385 U	NA	0.0393 U	0.0373 U	0.0367 U	0.0349 U	0.0356 U	NA	0.0342 U	0.0373 U
	Aroclor-1268	mg/kg	1	NS	NS	0.0348 U	0.0360 U	0.0350 U	0.0358 U	0.0385 U	NA	0.0393 U	0.0373 U	0.0367 U	0.0349 U	0.0356 U	NA	0.0342 U	0.0373 U
	PCBs, Total	mg/kg	1	2	2	0.0348 U	0.0360 U	0.0350 U	0.0358 U	0.0385 U	NA	0.0393 U	0.0373 U	0.0367 U	0.0349 U	0.0356 U	NA	0.0342 U	0.0373 U
TPH																			
	Total Petroleum Hydrocarbons C10-C36	mg/kg	1,000	2,500	5,000	216	195	NA	114	NA	35.5	NA	112 U	122	35.3 U	35.8 U	NA	34.1 U	397
Metals, total																			
	Antimony	mg/kg	20	NS	NS	2.59	2.32	2.10 U	NA	2.35 U	NA	2.40 U	NA	NA	NA	NA	NA	NA	NA
	Arsenic	mg/kg	20	40	40	8.13	9.58	2.31	4.02	14.3	NA	4.48	2.55	9.38	5.37	2.92	NA	1.42	6.77
	Barium	mg/kg	1,000	NS	NS	26.6	48.5	14.9	24.6	35.9	NA	33.4	13.6	46.0	22.9	18.9	NA	11.6	26.9
	Beryllium	mg/kg	90	NS	NS	0.231	0.276	0.210 U	NA	0.466	NA	0.240 U	NA	NA	NA	NA	NA	NA	NA
	Cadmium	mg/kg	70	30	80	0.886	0.903	0.458	0.828	0.471	NA	0.480 U	0.443 U	1.03	0.435	0.431 U	NA	0.725	0.776
	Chromium	mg/kg	100	1,000	1,000	10.4	14.2	6.72	11.9	34.4	NA	8.72	4.78	24.9	11.6	5.82	NA	11.7	13.8
	Lead	mg/kg	200	1,000	2,000	96.4	198	6.31	31.7	75.0	NA	87.3	6.82	60.9	4.10	6.26	NA	2.32	129
	Mercury	mg/kg	20	10	10	0.142	0.154	NA	0.080 U	NA	0.082 U	NA	0.086 U	0.10	0.082 U	0.077 U	NA	0.079 U	0.791
	Nickel	mg/kg	600	NS	NS	8.94	10.7	5.46	NA	31.1	NA	6.52	NA	NA	NA	NA	NA	NA	NA
	Selenium	mg/kg	400	NS	NS	2.18 U	2.12 U	2.10 U	2.12 U	2.35 U	NA	2.40 U	2.21 U	2.12 U	2.13 U	2.15 U	NA	2.08 U	2.26 U
	Silver	mg/kg	100	NS	NS	0.437 U	0.424 U	0.420 U	0.425 U	0.471 U	NA	0.480 U	0.443 U	0.424 U	0.427 U	0.431 U	NA	0.416 U	0.451 U
	Thallium	mg/kg	8	NS	NS	2.18 U	2.12 U	2.10 U	NA	2.35 U	NA	2.40 U	NA	NA	NA	NA	NA	NA	NA

TABLE 2
Additional Characterization Soil Ananalytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth^: Sample Date:						GLC-WASH(A)	GLC-WASH(B)	GLX-TPW-401	GLX-TPW-401A	GLX-TPW-402	GLX-TPW-402A	GLX-TPW-403	GLX-TPW-403A	GLX-TPW-404	GLX-TPW-405	GLX-TPW-406		GLX-TPW-407	GLX-TPW-408														
						N/A	N/A	0-3/3 ft	0-1 ft	0-6/4 ft	0-4 ft	0-3/3 ft	0-3 ft	0-3/2 ft	0-3/2 ft	0-2/1 ft	1 ft	0-5/3 ft	0-4/3 ft														
						02/25/2020	02/25/2020	11/06/2019	03/01/2020	11/06/2019	03/09/2020	11/06/2019	03/01/2020	02/25/2020	02/25/2020	02/26/2020	02/26/2020	02/26/2020	02/26/2020														
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**											Low VOC		High VOC															
	Vanadium	mg/kg	400	NS	NS	12.9		14.7		7.86		NA		32.7		NA		13.3		NA		NA		NA		NA		NA		NA		NA	
	Zinc	mg/kg	1,000	NS	NS	77.5		113		24.6		NA		127		NA		73.9		NA		NA		NA		NA		NA		NA		NA	

TABLE 2
Additional Characterization Soil Ananalytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth^: Sample Date:						GLC-WASH(A)		GLC-WASH(B)		GLX-TPW-401		GLX-TPW-401A		GLX-TPW-402		GLX-TPW-402A		GLX-TPW-403		GLX-TPW-403A		GLX-TPW-404		GLX-TPW-405		GLX-TPW-406				GLX-TPW-407		GLX-TPW-408	
						02/25/2020		02/25/2020		11/06/2019		03/01/2020		11/06/2019		03/09/2020		11/06/2019		03/01/2020		02/25/2020		02/25/2020		02/26/2020		02/26/2020		02/26/2020		02/26/2020	
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**																					Low VOC		High VOC					
Metals, TCLP		mg/L	5*	NS	NS	NA		0.500	U	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.500	U
General Chemistry																																	
	Ignitability	none	NS	NS	NS	NI		NI		NA		NI		NA		NI		NA		NI		NI		NI		NI		NA		NI		NI	
	Specific conductance	umhos/cm	NS	4,000	8,000	34		41		NA		160		NA		40		NA		84		81		60		120		NA		91		60	
	pH	su	NS	>2 <12.5	>2 <12.5	8.4		8.6		6.8		9.0		9.2		8.9		10.0		8.1		7.8		8.0		9.8		NA		9.8		8.5	
	Reactive Cyanide	mg/kg	NS	< 250	< 250	10	U	10	U	NA		10	U	NA		10	U	NA		10	U	10	U	10	U	10	U	NA		10	U	10	U
	Reactive Sulfide	mg/kg	NS	< 500	< 500	10	U	10	U	NA		10	U	NA		10	U	NA		10	U	10	U	10	U	10	U	NA		10	U	10	U

Notes:

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

mg/L - milligrams per liter.

su - Standard unit.

umhos/cm - Micro-mhos per centimeter.

E - Value exceeds calibration range.

I - The lower value for the two columns has been reported due to obvious interference.

NA - Sample not analyzed for the listed analyte.

N/A - Not available/applicable.

ND - Not detected.

NI - Not ignitable.

NS - No MassDEP standards exist for this analyte.

P - The RPD (relative percent difference) between the results for the two columns exceeds the method-specified criteria.

U - Analyte was not detected at specified quantitation limit.

Values in **bold** indicate the analyte was detected.

Values shown in bold and shaded type are equal to RCS-1 or exceed one or more of the listed MassDEP standards/criteria.

VOCs - Volatile Organic Compounds.

SVOCs - Semivolatile Organic Compounds.

PCBs - Polychlorinated Biphenyls.

TPH - Total Petroleum Hydrocarbons.

TCLP - Toxicity Characteristic Leaching Procedure.

RC - Reportable concentration.

* - EPA SW-846 Chapter 7, Table 7-1, Maximum Concentration of Contaminants for Toxicity Characteristic.

** - Reuse and Disposal of Contaminated Soil at Massachusetts Landfills, MassDEP Policy # COMM-97-001, August 1997.

^ - Sample depth for other/VOCs analysis; otherwise for all the analyses.

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth: Sample Date:						GLX-TPW-409	GLX-TPW-410	GLX-TPW-411	GLX-TPW-412	GLX-TPW-601				GLX-TPW-602				GLX-TPW-603																	
						0-3/1.5-2 ft 03/16/2020	0-5/1 ft 02/26/2020	0-4/2-2.5 ft 03/27/2020	0-2/1-2 ft 03/01/2020	0-8 ft 10/20/2019	0-2/2 ft 10/20/2019	2-5/3 ft 10/20/2019	5-8/6 ft 10/20/2019	0-8 ft 10/20/2019	0-2/2 ft 10/20/2019	2-5/4.5 ft 10/20/2019	5-8/6.5 ft 10/20/2019	0-5 ft 10/20/2019	0-2/1.5 ft 10/20/2019	2-5/3 ft 10/20/2019															
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**																														
VOCs																																			
	Methylene chloride	mg/kg	0.1	NS	NS	0.2	U	0.0043	U	0.0025	U	0.32	U	NA		0.0035	U	0.54	U	0.0038	U	NA		0.28	U	2.4	U	0.0050	U	NA		0.0033	U	0.0033	U
	1,1-Dichloroethane	mg/kg	0.4	NS	NS	0.039	U	0.00087	U	0.00049	U	0.063	U	NA		0.0007	U	0.11	U	0.00076	U	NA		0.056	U	0.47	U	0.0010	U	NA		0.00066	U	0.00065	U
	Chloroform	mg/kg	0.2	NS	NS	0.059	U	0.0013	U	0.00074	U	0.095	U	NA		0.001	U	0.16	U	0.0011	U	NA		0.084	U	0.71	U	0.0015	U	NA		0.0010	U	0.00098	U
	Carbon tetrachloride	mg/kg	5	NS	NS	0.039	U	0.00087	U	0.00049	U	0.063	U	NA		0.0007	U	0.11	U	0.00076	U	NA		0.056	U	0.47	U	0.0010	U	NA		0.00066	U	0.00065	U
	1,2-Dichloropropane	mg/kg	0.1	NS	NS	0.039	U	0.00087	U	0.00049	U	0.063	U	NA		0.0007	U	0.11	U	0.00076	U	NA		0.056	U	0.47	U	0.0010	U	NA		0.00066	U	0.00065	U
	Dibromochloromethane	mg/kg	0.005	NS	NS	0.039	U	0.00087	U	0.00049	U	0.063	U	NA		0.0007	U	0.11	U	0.00076	U	NA		0.056	U	0.47	U	0.0010	U	NA		0.00066	U	0.00065	U
	1,1,2-Trichloroethane	mg/kg	0.1	NS	NS	0.039	U	0.00087	U	0.00049	U	0.063	U	NA		0.0007	U	0.11	U	0.00076	U	NA		0.056	U	0.47	U	0.0010	U	NA		0.00066	U	0.00065	U
	Tetrachloroethene	mg/kg	1	NS	NS	1.1		0.014		0.0029		0.032	U	NA		0.0012		0.7		0.00038	U	NA		0.028	U	0.24	U	0.00050	U	NA		0.00033	U	0.00033	U
	Chlorobenzene	mg/kg	1	NS	NS	0.02	U	0.00043	U	0.00025	U	0.032	U	NA		0.00035	U	0.054	U	0.00038	U	NA		0.028	U	0.24	U	0.00050	U	NA		0.00033	U	0.00033	U
	Trichlorofluoromethane	mg/kg	1,000	NS	NS	0.16	U	0.0035	U	0.0020	U	0.25	U	NA		0.0028	U	0.43	U	0.0030	U	NA		0.22	U	1.9	U	0.0040	U	NA		0.0027	U	0.0026	U
	1,2-Dichloroethane	mg/kg	0.1	NS	NS	0.039	U	0.00087	U	0.00049	U	0.063	U	NA		0.0007	U	0.11	U	0.00076	U	NA		0.056	U	0.47	U	0.0010	U	NA		0.00066	U	0.00065	U
	1,1,1-Trichloroethane	mg/kg	30	NS	NS	0.02	U	0.00046		0.00025	U	0.032	U	NA		0.00035	U	0.054	U	0.00038	U	NA		0.028	U	0.24	U	0.00050	U	NA		0.00033	U	0.00033	U
	Bromodichloromethane	mg/kg	0.1	NS	NS	0.02	U	0.00043	U	0.00025	U	0.032	U	NA		0.00035	U	0.054	U	0.00038	U	NA		0.028	U	0.24	U	0.00050	U	NA		0.00033	U	0.00033	U
	trans-1,3-Dichloropropene	mg/kg	0.01	NS	NS	0.039	U	0.00087	U	0.00049	U	0.063	U	NA		0.0007	U	0.11	U	0.00076	U	NA		0.056	U	0.47	U	0.0010	U	NA		0.00066	U	0.00065	U
	cis-1,3-Dichloropropene	mg/kg	0.01	NS	NS	0.02	U	0.00043	U	0.00025	U	0.032	U	NA		0.00035	U	0.054	U	0.00038	U	NA		0.028	U	0.24	U	0.00050	U	NA		0.00033	U	0.00033	U
	1,3-Dichloropropene, Total	mg/kg	0.01	NS	NS	0.02	U	0.00043	U	0.00025	U	0.032	U	NA		0.00035	U	0.054	U	0.00038	U	NA		0.028	U	0.24	U	0.00050	U	NA		0.00033	U	0.00033	U
	1,1-Dichloropropene	mg/kg	0.01	NS	NS	0.02	U	0.00043	U	0.00025	U	0.032	U	NA		0.00035	U	0.054	U	0.00038	U	NA		0.028	U	0.24	U	0.00050	U	NA		0.00033	U	0.00033	U
	Bromoform	mg/kg	0.1	NS	NS	0.16	U	0.0035	U	0.0020	U	0.25	U	NA		0.0028	U	0.43	U	0.0030	U	NA		0.22	U	1.9	U	0.0040	U	NA		0.0027	U	0.0026	U
	1,1,2,2-Tetrachloroethane	mg/kg	0.005	NS	NS	0.02	U	0.00043	U	0.00025	U	0.032	U	NA		0.00035	U	0.054	U	0.00038	U	NA		0.028	U	0.24	U	0.00050	U	NA		0.00033	U	0.00033	U
	Benzene	mg/kg	2	NS	NS	0.02	U	0.00043	U	0.0020		0.032	U	NA		0.00035	U	0.054	U	0.00038	U	NA		0.044		0.24	U	0.00050	U	NA		0.00033	U	0.00033	U
	Toluene	mg/kg	30	NS	NS	0.039	U	0.00087	U	0.00049	U	0.063	U	NA		0.0007	U	0.11	U	0.00076	U	NA		0.11		0.47	U	0.0010	U	NA		0.00066	U	0.00065	U
	Ethylbenzene	mg/kg	40	NS	NS	0.039	U	0.00087	U	0.00049	U	0.063	U	NA		0.0007	U	0.11	U	0.00076	U	NA		0.056	U	0.47	U	0.0010	U	NA		0.00066	U	0.00065	U
	Chloromethane	mg/kg	100	NS	NS	0.16	U	0.0035	U	0.0020	U	0.25	U	NA		0.0028	U	0.43	U	0.0030	U	NA		0.22	U	1.9	U	0.0040	U	NA		0.0027	U	0.0026	U
	Bromomethane	mg/kg	0.5	NS	NS	0.078	U	0.0017	U	0.00099	U	0.13	U	NA		0.0014	U	0.22	U	0.0015	U	NA		0.11	U	0.94	U	0.0020	U	NA		0.0013	U	0.0013	U
	Vinyl chloride	mg/kg	0.7	NS	NS	0.039	U	0.00087	U	0.00049	U	0.063	U	NA		0.0007	U	0.11	U	0.00076	U	NA		0.056	U	0.47	U	0.0010	U	NA		0.00066	U	0.00065	U
	Chloroethane	mg/kg	100	NS	NS	0.078	U	0.0017	U	0.00099	U	0.13	U	NA		0.0014	U	0.22	U	0.0015	U	NA		0.11	U	0.94	U	0.0020	U	NA		0.0013	U	0.0013	U
	1,1-Dichloroethene	mg/kg	3	NS	NS	0.039	U	0.00087	U	0.00049	U	0.063	U	NA		0.0007	U	0.11	U	0.00076	U	NA		0.056	U	0.47	U	0.0010	U	NA		0.00066	U	0.00065	U
	trans-1,2-Dichloroethene	mg/kg	1	NS	NS	0.059	U	0.0013	U	0.00074	U	0.095	U	NA		0.001	U	0.16	U	0.0011	U	NA		0.084	U	0.71	U	0.0015	U	NA		0.0010	U	0.00098	U
	Trichloroethene	mg/kg	0.3	NS	NS	0.05		0.0012		0.00025	U	0.032	U	NA		0.00035	U	0.054	U	0.00038	U	NA		0.028	U	0.24	U	0.00050	U	NA		0.00033	U	0.00033	U
	1,2-Dichlorobenzene																																		

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth^: Sample Date:						GLX-TPW-409	GLX-TPW-410	GLX-TPW-411	GLX-TPW-412	GLX-TPW-601				GLX-TPW-602				GLX-TPW-603		
						0-3/1.5-2 ft 03/16/2020	0-5/1 ft 02/26/2020	0-4/2-2.5 ft 03/27/2020	0-2/1-2 ft 03/01/2020	0-8 ft 10/20/2019	0-2/2 ft 10/20/2019	2-5/3 ft 10/20/2019	5-8/6 ft 10/20/2019	0-8 ft 10/20/2019	0-2/2 ft 10/20/2019	2-5/4.5 ft 10/20/2019	5-8/6.5 ft 10/20/2019	0-5 ft 10/20/2019	0-2/1.5 ft 10/20/2019	2-5/3 ft 10/20/2019
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**															
	Naphthalene	mg/kg	4	NS	NS	0.16 U	0.0035 U	0.0020 U	14	NA	0.0028 U	0.43 U	0.0030 U	NA	1	93	0.0040 U	NA	0.0027 U	0.0026 U
	n-Propylbenzene	mg/kg	100	NS	NS	0.039 U	0.00087 U	0.00049 U	0.063 U	NA	0.0007 U	0.11 U	0.00076 U	NA	0.056 U	0.47 U	0.0010 U	NA	0.00066 U	0.00065 U
	1,2,3-Trichlorobenzene	mg/kg	NS	NS	NS	0.078 U	0.0017 U	0.00099 U	0.13 U	NA	0.0014 U	0.22 U	0.0015 U	NA	0.11 U	0.94 U	0.0020 U	NA	0.0013 U	0.0013 U
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	0.078 U	0.0017 U	0.00099 U	0.13 U	NA	0.0014 U	0.22 U	0.0015 U	NA	0.11 U	0.94 U	0.0020 U	NA	0.0013 U	0.0013 U
	1,3,5-Trimethylbenzene	mg/kg	10	NS	NS	0.078 U	0.0017 U	0.00099 U	0.13 U	NA	0.0014 U	0.22 U	0.0015 U	NA	0.11 U	0.94 U	0.0020 U	NA	0.0013 U	0.0013 U
	1,2,4-Trimethylbenzene	mg/kg	1,000	NS	NS	0.078 U	0.0017 U	0.00099 U	0.13 U	NA	0.0014 U	0.22 U	0.0015 U	NA	0.11 U	1.2	0.0020 U	NA	0.0013 U	0.0013 U
	Ethyl ether	mg/kg	100	NS	NS	0.078 U	0.0017 U	0.00099 U	0.13 U	NA	0.0014 U	0.22 U	0.0015 U	NA	0.11 U	0.94 U	0.0020 U	NA	0.0013 U	0.0013 U
	Isopropyl Ether	mg/kg	100	NS	NS	0.078 U	0.0017 U	0.00099 U	0.13 U	NA	0.0014 U	0.22 U	0.0015 U	NA	0.11 U	0.94 U	0.0020 U	NA	0.0013 U	0.0013 U
	Ethyl-Tert-Butyl-Ether	mg/kg	NS	NS	NS	0.078 U	0.0017 U	0.00099 U	0.13 U	NA	0.0014 U	0.22 U	0.0015 U	NA	0.11 U	0.94 U	0.0020 U	NA	0.0013 U	0.0013 U
	Tertiary-Amyl Methyl Ether	mg/kg	NS	NS	NS	0.078 U	0.0017 U	0.00099 U	0.13 U	NA	0.0014 U	0.22 U	0.0015 U	NA	0.11 U	0.94 U	0.0020 U	NA	0.0013 U	0.0013 U
	1,4-Dioxane	mg/kg	0.2	NS	NS	3.1 U	0.069 U	0.04 U	5.1 U	NA	0.056 U	8.7 U	0.061 U	NA	4.5 U	38 U	0.08 U	NA	0.053 U	0.052 U
	Total VOCs	mg/kg	N/A	4	10	1.15	0.017	0.120	14	NA	0.098	0.70	0.034	NA	1.23	94.2	0.110	NA	0.022	0.027
SVOCs																				
	Acenaphthene	mg/kg	4	NS	NS	0.18	0.15 U	0.74 U	3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	0.18 U	0.19 U	0.93 U	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.077 U	0.08 U	0.39 U	0.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Bis(2-chloroethyl)ether	mg/kg	0.7	NS	NS	0.077 U	0.08 U	0.39 U	0.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2-Chloronaphthalene	mg/kg	1,000	NS	NS	0.18 U	0.19 U	0.93 U	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	0.18 U	0.19 U	0.93 U	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	0.18 U	0.19 U	0.93 U	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	0.077 U	0.08 U	0.39 U	0.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3,3'-Dichlorobenzidine	mg/kg	3	NS	NS	0.18 U	0.19 U	0.93 U	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4-Dinitrotoluene	mg/kg	0.7	NS	NS	0.077 U	0.08 U	0.39 U	0.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,6-Dinitrotoluene	mg/kg	100	NS	NS	0.18 U	0.19 U	0.93 U	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Azobenzene	mg/kg	NS	NS	NS	0.18 U	0.19 U	0.93 U	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluoranthene	mg/kg	1,000	NS	NS	4.3	0.2	20	9.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4-Bromophenyl phenyl ether	mg/kg	100	NS	NS	0.18 U	0.19 U	0.93 U	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Bis(2-chloroisopropyl)ether	mg/kg	0.7	NS	NS	0.077 U	0.08 U	0.39 U	0.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Bis(2-chloroethoxy)methane	mg/kg	500	NS	NS	0.2 U	0.2 U	1 U	0.37 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Hexachlorobutadiene	mg/kg	30	NS	NS	0.18 U	0.19 U	0.93 U	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Hexachloroethane	mg/kg	0.7	NS	NS	0.077 U	0.08 U	0.39 U	0.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Isophorone	mg/kg	100	NS	NS	0.16 U	0.17 U	0.84 U	0.31 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Naphthalene	mg/kg	4	NS	NS	0.46	0.19 U	1.3	9.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nitrobenzene	mg/kg	500	NS	NS	0.16 U	0.17 U	0.84 U	0.31 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Bis(2-Ethylhexyl)phthalate	mg/kg	90	NS	NS	0.18 U	0.19 U	0.93 U	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Butyl benzyl phthalate	mg/kg	100	NS	NS	0.18 U	0.19 U	0.93 U	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Di-n-butylphthalate	mg/kg	50	NS	NS	0.18 U	0.19 U	0.93 U	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Di-n-octylphthalate	mg/kg	1,000	NS	NS	0.18 U	0.19 U	0.93 U	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Diethyl phthalate	mg/kg	10	NS	NS	0.18 U	0.19 U	0.93 U	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dimethyl phthalate	mg/kg	0.7	NS	NS	0.077 U	0.08 U	0.39 U	0.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzo(a)anthracene	mg/kg	7	NS	NS	2.2	0.11 U	10	4.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzo(a)pyrene	mg/kg	2	NS	NS	1.9	0.15 U	11	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzo(b)fluoranthene	mg/kg	7	NS	NS	2.2	0.11 U	14	5.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzo(k)fluoranthene	mg/kg	70	NS	NS	0.71	0.11 U	4.4	1.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chrysene	mg/kg	70	NS	NS	1.8	0.11 U	9.8	3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Acenaphthylene	mg/kg	1	NS	NS	0.25	0.15 U	1.6	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Anthracene	mg/kg	1,000	NS	NS	0.87	0.11 U	2.1	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzo(ghi)perylene	mg/kg	1,000	NS	NS	0.89	0.15 U	6.6	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Fluorene	mg/kg	1,000	NS	NS	0.31	0.19 U	0.93 U	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phenanthrene	mg/kg	10	NS	NS	2.3	0.13	6.1	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dibenzo(a,h)anthracene	mg/kg	0.7	NS	NS	0.24	0.08 U	1.5	0.56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Indeno(1,2,3-cd)Pyrene	mg/kg	7	NS	NS	1	0.15 U	7.2	2.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Pyrene	mg/kg	1,000	NS	NS	3.6	0.17	19	8.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aniline	mg/kg	1,000	NS	NS	0.22 U	0.23 U	1.1 U	0.41 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4-Chloroaniline	mg/kg	1	NS	NS	0.18 U	0.19 U	0.93 U	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dibenzofuran	mg/kg	100	NS	NS	0.21	0.19 U	0.93 U	3.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2-Methylnaphthalene	mg/kg	0.7	NS	NS	0.15	0.08 U	0.49	3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Acetophenone	mg/kg	1,000	NS	NS	0.18 U	0.19 U	0.93 U	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4,6-Trichlorophenol	mg/kg	0.7	NS	NS	0.077 U	0.08 U	0.39 U	0.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2-Chlorophenol	mg/kg	0.7	NS	NS	0.077 U	0.08 U	0.39 U	0.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4-Dichlorophenol	mg/kg	0.7	NS	NS	0.077 U	0.08 U	0.39 U	0.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4-Dimethylphenol	mg/kg	0.7	NS	NS	0.077 U	0.08 U	0.39 U	0.14 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2-Nitrophenol	mg/kg	100	NS	NS	0.39 U	0.41 U	2 U	0.74 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4-Nitrophenol	mg/kg	100	NS	NS	0.26 U	0.26 U	1.3 U	0.48 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth^: Sample Date:						GLX-TPW-409	GLX-TPW-410	GLX-TPW-411	GLX-TPW-412	GLX-TPW-601				GLX-TPW-602				GLX-TPW-603		
						0-3/1.5-2 ft 03/16/2020	0-5/1 ft 02/26/2020	0-4/2-2.5 ft 03/27/2020	0-2/1-2 ft 03/01/2020	0-8 ft 10/20/2019	0-2/2 ft 10/20/2019	2-5/3 ft 10/20/2019	5-8/6 ft 10/20/2019	0-8 ft 10/20/2019	0-2/2 ft 10/20/2019	2-5/4.5 ft 10/20/2019	5-8/6.5 ft 10/20/2019	0-5 ft 10/20/2019	0-2/1.5 ft 10/20/2019	2-5/3 ft 10/20/2019
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**															
	2,4-Dinitrophenol	mg/kg	3	NS	NS	0.88 U	0.91 U	4.4 U	1.6 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Pentachlorophenol	mg/kg	3	NS	NS	0.36 U	0.38 U	1.8 U	0.68 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Phenol	mg/kg	1	NS	NS	0.18 U	0.19 U	0.93 U	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2-Methylphenol	mg/kg	500	NS	NS	0.18 U	0.19 U	0.93 U	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3-Methylphenol/4-Methylphenol	mg/kg	NS	NS	NS	0.26 U	0.27 U	1.3 U	0.49 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4,5-Trichlorophenol	mg/kg	4	NS	NS	0.18 U	0.19 U	0.93 U	0.34 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Pyridine	mg/kg	500	NS	NS	0.2 U	0.2 U	1 U	0.37 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Total SVOCs	mg/kg	N/A	100	100	23.6	0.50	115	85.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pesticides																				
	Delta-BHC	mg/kg	10	NS	NS	0.00174 U	0.00182 U	0.00870 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Lindane	mg/kg	0.003	NS	NS	0.000581 U	0.000608 U	0.00290 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alpha-BHC	mg/kg	50	NS	NS	0.000727 U	0.000760 U	0.00362 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Beta-BHC	mg/kg	10	NS	NS	0.00174 U	0.00182 U	0.00870 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Heptachlor	mg/kg	0.3	NS	NS	0.000872 U	0.000912 U	0.00435 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aldrin	mg/kg	0.08	NS	NS	0.00174 U	0.00182 U	0.00870 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Heptachlor epoxide	mg/kg	0.1	NS	NS	0.00327 U	0.00342 U	0.0163 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Endrin	mg/kg	10	NS	NS	0.000727 U	0.000760 U	0.00362 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Endrin ketone	mg/kg	10	NS	NS	0.00174 U	0.00182 U	0.00870 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dieldrin	mg/kg	0.08	NS	NS	0.00109 U	0.00114 U	0.00544 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4,4'-DDE	mg/kg	6	NS	NS	0.00174 U	0.00182 U	0.00870 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4,4'-DDD	mg/kg	8	NS	NS	0.00174 U	0.00182 U	0.00870 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4,4'-DDT	mg/kg	6	NS	NS	0.00327 U	0.00342 U	0.0320	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Endosulfan I	mg/kg	0.5	NS	NS	0.00174 U	0.00182 U	0.00870 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Endosulfan II	mg/kg	0.5	NS	NS	0.00174 U	0.00182 U	0.00870 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Endosulfan sulfate	mg/kg	0.5	NS	NS	0.000727 U	0.000760 U	0.00362 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Methoxychlor	mg/kg	200	NS	NS	0.00327 U	0.00342 U	0.0163 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chlordane	mg/kg	0.7	NS	NS	0.0145 U	0.0152 U	0.123	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.00174 U	0.00182 U	0.00870 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																				
	MCPP	mg/kg	NS	NS	NS	3.6 U	3.8 U	3.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MCPA	mg/kg	100	NS	NS	3.6 U	3.8 U	3.7 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dalapon	mg/kg	1,000	NS	NS	0.036 U	0.038 U	0.037 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dicamba	mg/kg	500	NS	NS	0.036 U	0.038 U	0.037 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dichloroprop	mg/kg	NS	NS	NS	0.036 U	0.038 U	0.037 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4-D	mg/kg	100	NS	NS	0.036 U	0.038 U	0.037 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4-DB	mg/kg	100	NS	NS	0.036 U	0.038 U	0.037 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4,5-T	mg/kg	100	NS	NS	0.036 U	0.038 U	0.037 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4,5-TP (Silvex)	mg/kg	100	NS	NS	0.036 U	0.038 U	0.037 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB Aroclors																				
	Aroclor-1016	mg/kg	1	NS	NS	0.0355 U	0.0363 U	0.0367 U	0.0338 U	0.034 U	NA	NA	NA	0.036 U	NA	NA	NA	0.034 U	NA	NA
	Aroclor-1221	mg/kg	1	NS	NS	0.0355 U	0.0363 U	0.0367 U	0.0338 U	0.034 U	NA	NA	NA	0.036 U	NA	NA	NA	0.034 U	NA	NA
	Aroclor-1232	mg/kg	1	NS	NS	0.0355 U	0.0363 U	0.0367 U	0.0338 U	0.034 U	NA	NA	NA	0.036 U	NA	NA	NA	0.034 U	NA	NA
	Aroclor-1242	mg/kg	1	NS	NS	0.0355 U	0.0363 U	0.0367 U	0.0338 U	0.034 U	NA	NA	NA	0.036 U	NA	NA	NA	0.034 U	NA	NA
	Aroclor-1248	mg/kg	1	NS	NS	0.0355 U	0.0363 U	0.0367 U	0.0338 U	0.034 U	NA	NA	NA	0.036 U	NA	NA	NA	0.034 U	NA	NA
	Aroclor-1254	mg/kg	1	NS	NS	0.0355 U	0.0363 U	0.0367 U	0.0338 U	0.034 U	NA	NA	NA	0.036 U	NA	NA	NA	0.034 U	NA	NA
	Aroclor-1260	mg/kg	1	NS	NS	0.0355 U	0.0363 U	0.0886	0.0338 U	0.034 U	NA	NA	NA	0.036 U	NA	NA	NA	0.034 U	NA	NA
	Aroclor-1262	mg/kg	1	NS	NS	0.0355 U	0.0363 U	0.0367 U	0.0338 U	0.034 U	NA	NA	NA	0.036 U	NA	NA	NA	0.034 U	NA	NA
	Aroclor-1268	mg/kg	1	NS	NS	0.0355 U	0.0363 U	0.0367 U	0.0338 U	0.034 U	NA	NA	NA	0.036 U	NA	NA	NA	0.034 U	NA	NA
	PCBs, Total	mg/kg	1	2	2	0.0355 U	0.0363 U	0.0886	0.0338 U	0.034 U	NA	NA	NA	0.036 U	NA	NA	NA	0.034 U	NA	NA
TPH																				
	Total Petroleum Hydrocarbons C10-C36	mg/kg	1,000	2,500	5,000	527	110	1,450	308	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals, total																				
	Antimony	mg/kg	20	NS	NS	NA	NA	2.20 U	NA	2.10 U	NA	NA	NA	3.16	NA	NA	NA	1.98 U	NA	NA
	Arsenic	mg/kg	20	40	40	11.6	3.70	6.45	2.97	10.3	NA	NA	NA	17.3	NA	NA	NA	24.9	NA	NA
	Barium	mg/kg	1,000	NS	NS	30.1	16.6	51.3	18.2	18.4	NA	NA	NA	27.2	NA	NA	NA	16.8	NA	NA
	Beryllium	mg/kg	90	NS	NS	NA	NA	0.366	NA	0.210 U	NA	NA	NA	0.210 U	NA	NA	NA	0.198 U	NA	NA
	Cadmium	mg/kg	70	30	80	1.20	0.598	0.555	0.537	0.421 U	NA	NA	NA	0.822	NA	NA	NA	0.397 U	NA	NA
	Chromium	mg/kg	100	1,000	1,000	22.7	9.97	24.8	11.1	10.1	NA	NA	NA	13.6	NA	NA	NA	8.27	NA	NA
	Lead	mg/kg	200	1,000	2,000	144	71.0	359	46.4	24.8	NA	NA	NA	56.6	NA	NA	NA	21.6	NA	NA
	Mercury	mg/kg	20	10	10	0.082 U	0.082 U	0.175	0.140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nickel	mg/kg	600	NS	NS	NA	NA	16.2	NA	7.53	NA	NA	NA	11.0	NA	NA	NA	6.64	NA	NA
	Selenium	mg/kg	400	NS	NS	2.12 U	2.28 U	2.20 U	2.02 U	2.10 U	NA	NA	NA	2.10 U	NA	NA	NA	1.98 U	NA	NA
	Silver	mg/kg	100	NS	NS	0.425 U	0.457 U	0.440 U	0.404 U	0.421 U	NA	NA	NA	0.420 U	NA	NA	NA	0.397 U	NA	NA
	Thallium	mg/kg	8	NS	NS	NA	NA	2.20 U	NA	2.10 U	NA	NA	NA	2.10 U	NA	NA	NA	1.98 U	NA	NA

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth: Sample Date:						GLX-TPW-409	GLX-TPW-410	GLX-TPW-411	GLX-TPW-412	GLX-TPW-601								GLX-TPW-602								GLX-TPW-603																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
						0-3/1.5-2 ft	0-5/1 ft	0-4/2-2.5 ft	0-2/1-2 ft	0-8 ft		0-2/2 ft		2-5/3 ft		5-8/6 ft		0-8 ft		0-2/2 ft		2-5/4.5 ft		5-8/6.5 ft		0-5 ft		0-2/1.5 ft		2-5/3 ft																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
						03/16/2020	02/26/2020	03/27/2020	03/01/2020	10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															

TABLE 2
Additional Characterization Soil Ananalytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth: Sample Date:						GLX-TPW-409 0-3/1.5-2 ft 03/16/2020		GLX-TPW-410 0-5/1 ft 02/26/2020		GLX-TPW-411 0-4/2-2.5 ft 03/27/2020		GLX-TPW-412 0-2/1-2 ft 03/01/2020		GLX-TPW-601				GLX-TPW-602				GLX-TPW-603											
														0-8 ft		0-2/2 ft		2-5/3 ft		5-8/6 ft		0-8 ft		0-2/2 ft		2-5/4.5 ft		5-8/6.5 ft		0-5 ft		0-2/1.5 ft	
						10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019					
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**																												
Metals, TCLP																																	
	Lead	mg/L	5*	NS	NS	0.500	U		NA		1.09		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
General Chemistry																																	
	Ignitability	none	NS	NS	NS	NI			NI		NI		NI		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
	Specific conductance	umhos/cm	NS	4,000	8,000	120			220		79		300		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
	pH	su	NS	>2 <12.5	>2 <12.5	9.0			8.1		8.4		9.1		NA		7.1		6.7		6.9		NA		7.6		7.6		6.9		NA		7.8
	Reactive Cyanide	mg/kg	NS	< 250	< 250	10	U		10	U		10	U		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
	Reactive Sulfide	mg/kg	NS	< 500	< 500	10	U		10	U		10	U		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA

Notes:

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

mg/L - milligrams per liter.

su - Standard unit.

umhos/cm - Micro-mhos per centimeter.

E - Value exceeds calibration range.

I - The lower value for the two columns has been reported due to obvious interference.

NA - Sample not analyzed for the listed analyte.

N/A - Not available/applicable.

ND - Not detected.

NI - Not ignitable.

NS - No MassDEP standards exist for this analyte.

P - The RPD (relative percent difference) between the results for the two columns exceeds the method-specified criteria.

U - Analyte was not detected at specified quantitation limit.

Values in **bold** indicate the analyte was detected.

Values shown in bold and shaded type are equal to RCS-1 or exceed one or more of the listed MassDEP standards/criteria.

VOCs - Volatile Organic Compounds.

SVOCs - Semivolatile Organic Compounds.

PCBs - Polychlorinated Biphenyls.

TPH - Total Petroleum Hydrocarbons.

TCLP - Toxicity Characteristic Leaching Procedure.

RC - Reportable concentration.

* - EPA SW-846 Chapter 7, Table 7-1, Maximum Concentration of Contaminants for Toxicity Characteristic.

** - Reuse and Disposal of Contaminated Soil at Massachusetts Landfills, MassDEP Policy # COMM-97-001, August 1997.

^ - Sample depth for other/VOCs analysis; otherwise for all the analyses.

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth: Sample Date:						GLX-TPW-603A		GLX-TPW-604				GLX-TPW-604A		GLX-TPW-605						GLX-TPW-605A		GLX-TPW-606											
						0-5 ft		0-5 ft		0-2/1 ft		2-5/3 ft		0-5 ft		0-8 ft		0-2/1 ft		2-5/3 ft		3 ft		5-8/8 ft		0-8 ft		0-5 ft		0-2/1 ft		2-5/4 ft	
						02/08/2020		10/20/2019		10/20/2019		10/20/2019		02/08/2020		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		02/08/2020		11/02/2019		11/02/2019		11/02/2019	
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**																												
VOCs																																	
	Methylene chloride	mg/kg	0.1	NS	NS	NA		NA		0.0034	U	0.0045	U	NA		NA		0.0041	U	0.0047	U	0.0050	U	0.0036	U	NA		NA		0.0040	U	0.0024	U
	1,1-Dichloroethane	mg/kg	0.4	NS	NS	NA		NA		0.00068	U	0.00089	U	NA		NA		0.00081	U	0.00094	U	0.0010	U	0.00072	U	NA		NA		0.00080	U	0.00048	U
	Chloroform	mg/kg	0.2	NS	NS	NA		NA		0.0010	U	0.0013	U	NA		NA		0.0012	U	0.0014	U	0.0015	U	0.0011	U	NA		NA		0.0012	U	0.00072	U
	Carbon tetrachloride	mg/kg	5	NS	NS	NA		NA		0.00068	U	0.00089	U	NA		NA		0.00081	U	0.00094	U	0.0010	U	0.00072	U	NA		NA		0.00080	U	0.00048	U
	1,2-Dichloropropane	mg/kg	0.1	NS	NS	NA		NA		0.00068	U	0.00089	U	NA		NA		0.00081	U	0.00094	U	0.0010	U	0.00072	U	NA		NA		0.00080	U	0.00048	U
	Dibromochloromethane	mg/kg	0.005	NS	NS	NA		NA		0.00068	U	0.00089	U	NA		NA		0.00081	U	0.00094	U	0.0010	U	0.00072	U	NA		NA		0.00080	U	0.00048	U
	1,1,2-Trichloroethane	mg/kg	0.1	NS	NS	NA		NA		0.00068	U	0.00089	U	NA		NA		0.00081	U	0.00094	U	0.0010	U	0.00072	U	NA		NA		0.00080	U	0.00048	U
	Tetrachloroethene	mg/kg	1	NS	NS	NA		NA		0.00034	U	0.00045	U	NA		NA		0.00041	U	0.00047	U	0.00050	U	0.00036	U	NA		NA		0.00040	U	0.00024	U
	Chlorobenzene	mg/kg	1	NS	NS	NA		NA		0.00034	U	0.00045	U	NA		NA		0.00041	U	0.00047	U	0.00050	U	0.00036	U	NA		NA		0.00040	U	0.00024	U
	Trichlorofluoromethane	mg/kg	1,000	NS	NS	NA		NA		0.0027	U	0.0036	U	NA		NA		0.0032	U	0.0038	U	0.0040	U	0.0029	U	NA		NA		0.0032	U	0.0019	U
	1,2-Dichloroethane	mg/kg	0.1	NS	NS	NA		NA		0.00068	U	0.00089	U	NA		NA		0.00081	U	0.00094	U	0.0010	U	0.00072	U	NA		NA		0.00080	U	0.00048	U
	1,1,1-Trichloroethane	mg/kg	30	NS	NS	NA		NA		0.00034	U	0.00045	U	NA		NA		0.00041	U	0.00047	U	0.00050	U	0.00036	U	NA		NA		0.00040	U	0.00024	U
	Bromodichloromethane	mg/kg	0.1	NS	NS	NA		NA		0.00034	U	0.00045	U	NA		NA		0.00041	U	0.00047	U	0.00050	U	0.00036	U	NA		NA		0.00040	U	0.00024	U
	trans-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		NA		0.00068	U	0.00089	U	NA		NA		0.00081	U	0.00094	U	0.0010	U	0.00072	U	NA		NA		0.00080	U	0.00048	U
	cis-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		NA		0.00034	U	0.00045	U	NA		NA		0.00041	U	0.00047	U	0.00050	U	0.00036	U	NA		NA		0.00040	U	0.00024	U
	1,3-Dichloropropene, Total	mg/kg	0.01	NS	NS	NA		NA		0.00034	U	0.00045	U	NA		NA		0.00041	U	0.00047	U	0.00050	U	0.00036	U	NA		NA		0.00040	U	0.00024	U
	1,1-Dichloropropene	mg/kg	0.01	NS	NS	NA		NA		0.00034	U	0.00045	U	NA		NA		0.00041	U	0.00047	U	0.00050	U	0.00036	U	NA		NA		0.00040	U	0.00024	U
	Bromoform	mg/kg	0.1	NS	NS	NA		NA		0.0027	U	0.0036	U	NA		NA		0.0032	U	0.0038	U	0.0040	U	0.0029	U	NA		NA		0.0032	U	0.0019	U
	1,1,2,2-Tetrachloroethane	mg/kg	0.005	NS	NS	NA		NA		0.00034	U	0.00045	U	NA		NA		0.00041	U	0.00047	U	0.00050	U	0.00036	U	NA		NA		0.00040	U	0.00024	U
	Benzene	mg/kg	2	NS	NS	NA		NA		0.00034	U	0.00061		NA		NA		0.00041	U	0.00047	U	0.00050	U	0.00036	U	NA		NA		0.00040	U	0.00024	U
	Toluene	mg/kg	30	NS	NS	NA		NA		0.00068	U	0.00089	U	NA		NA		0.00081	U	0.00094	U	0.0010	U	0.00072	U	NA		NA		0.00080	U	0.00048	U
	Ethylbenzene	mg/kg	40	NS	NS	NA		NA		0.00068	U	0.00089	U	NA		NA		0.00081	U	0.00094	U	0.0010	U	0.00072	U	NA		NA		0.00080	U	0.00048	U
	Chloromethane	mg/kg	100	NS	NS	NA		NA		0.0027	U	0.0036	U	NA		NA		0.0032	U	0.0038	U	0.0040	U	0.0029	U	NA		NA		0.0032	U	0.0019	U
	Bromomethane	mg/kg	0.5	NS	NS	NA		NA		0.0014	U	0.0018	U	NA		NA		0.0016	U	0.0019	U	0.0020	U	0.0014	U	NA		NA		0.0016	U	0.00096	U
	Vinyl chloride	mg/kg	0.7	NS	NS	NA		NA		0.00068	U	0.00089	U	NA		NA		0.00081	U	0.00094	U	0.0010	U	0.00072	U	NA		NA		0.00080	U	0.00048	U
	Chloroethane	mg/kg	100	NS	NS	NA		NA		0.0014	U	0.0018	U	NA		NA		0.0016	U	0.0019	U	0.0020	U	0.0014	U	NA		NA		0.0016	U	0.00096	U
	1,1-Dichloroethene	mg/kg	3	NS	NS	NA		NA		0.00068	U	0.00089	U	NA		NA		0.00081	U	0.00094	U	0.0010	U	0.00072	U	NA		NA		0.00080	U	0.00048	U
	trans-1,2-Dichloroethene	mg/kg	1	NS	NS	NA		NA		0.0010	U	0.0013	U	NA		NA		0.0012	U	0.0014	U	0.0015	U	0.0011	U	NA		NA		0.0012	U	0.00072	U
	Trichloroethene	mg/kg	0.3	NS	NS	NA		NA		0.00034	U	0.00045	U	NA		NA		0.00041	U	0.00047	U	0.00050	U	0.00036	U	NA		NA		0.00040	U	0.00024	U
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	NA		NA		0.0014	U	0.0018	U	NA		NA		0.0016	U	0.0019	U	0.0020	U	0.0014	U	NA		NA		0.0016	U	0.00096	U
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	NA		NA		0.0014	U	0.0018	U	NA		NA		0.0016	U	0.0019	U	0.0020	U	0.0014	U	NA		NA		0.0016	U	0.00096	U
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	NA		NA		0.0014	U	0.0018	U	NA		NA		0.0016	U	0.0019	U	0.0020	U	0.0014	U	NA		NA		0.0016	U	0.00096	U
	Methyl tert butyl ether	mg/kg	0.1	NS	NS	NA		NA		0.0014	U	0.0018	U	NA		NA		0.0016	U	0.0019	U	0.0020	U	0.0014	U	NA		NA		0.0016	U	0.00096	U
	p/m-Xylene	mg/kg	100	NS	NS	NA		NA		0.0014	U	0.0018	U	NA		NA		0.0016	U	0.0019	U	0.0020	U										

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth: Sample Date:						GLX-TPW-603A		GLX-TPW-604				GLX-TPW-604A		GLX-TPW-605						GLX-TPW-605A		GLX-TPW-606											
						0-5 ft		0-2/1 ft		2-5/3 ft		0-5 ft		0-8 ft		0-2/1 ft		2-5/3 ft		3 ft		5-8/8 ft		0-8 ft		0-5 ft		0-2/1 ft		2-5/4 ft			
						02/08/2020		10/20/2019		10/20/2019		10/20/2019		02/08/2020		10/20/2019		10/20/2019		10/20/2019		10/20/2019		02/08/2020		11/02/2019		11/02/2019		11/02/2019			
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**												Field Dup																
	Naphthalene	mg/kg	4	NS	NS	NA		NA		0.0027	U	0.0036	U	NA		NA		0.0032	U	0.0038	U	0.0040	U	0.0029	U	NA		NA		0.0032	U	0.0019	U
	n-Propylbenzene	mg/kg	100	NS	NS	NA		NA		0.00068	U	0.00089	U	NA		NA		0.00081	U	0.00094	U	0.0010	U	0.00072	U	NA		NA		0.00080	U	0.00048	U
	1,2,3-Trichlorobenzene	mg/kg	NS	NS	NS	NA		NA		0.0014	U	0.0018	U	NA		NA		0.0016	U	0.0019	U	0.0020	U	0.0014	U	NA		NA		0.0016	U	0.00096	U
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	NA		NA		0.0014	U	0.0018	U	NA		NA		0.0016	U	0.0019	U	0.0020	U	0.0014	U	NA		NA		0.0016	U	0.00096	U
	1,3,5-Trimethylbenzene	mg/kg	10	NS	NS	NA		NA		0.0014	U	0.0018	U	NA		NA		0.0016	U	0.0019	U	0.0020	U	0.0014	U	NA		NA		0.0016	U	0.00096	U
	1,2,4-Trimethylbenzene	mg/kg	1,000	NS	NS	NA		NA		0.0014	U	0.0018	U	NA		NA		0.0016	U	0.0019	U	0.0020	U	0.0014	U	NA		NA		0.0016	U	0.00096	U
	Ethyl ether	mg/kg	100	NS	NS	NA		NA		0.0014	U	0.0018	U	NA		NA		0.0016	U	0.0019	U	0.0020	U	0.0014	U	NA		NA		0.0016	U	0.00096	U
	Isopropyl Ether	mg/kg	100	NS	NS	NA		NA		0.0014	U	0.0018	U	NA		NA		0.0016	U	0.0019	U	0.0020	U	0.0014	U	NA		NA		0.0016	U	0.00096	U
	Ethyl-Tert-Butyl-Ether	mg/kg	NS	NS	NS	NA		NA		0.0014	U	0.0018	U	NA		NA		0.0016	U	0.0019	U	0.0020	U	0.0014	U	NA		NA		0.0016	U	0.00096	U
	Tertiary-Amyl Methyl Ether	mg/kg	NS	NS	NS	NA		NA		0.0014	U	0.0018	U	NA		NA		0.0016	U	0.0019	U	0.0020	U	0.0014	U	NA		NA		0.0016	U	0.00096	U
	1,4-Dioxane	mg/kg	0.2	NS	NS	NA		NA		0.054	U	0.072	U	NA		NA		0.065	U	0.075	U	0.08	U	0.057	U	NA		NA		0.064	U	0.038	U
	Total VOCs	mg/kg	N/A	4	10	NA		NA		0.049		0.042		NA		NA		0.034		0.092		0.061		ND		NA		NA		0.043		0.016	
SVOCs																																	
	Acenaphthene	mg/kg	4	NS	NS	0.14	U	NA		NA		NA		0.14	U	NA		NA		NA		NA		NA		0.85		NA		NA		NA	
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	0.17	U	NA		NA		NA		0.18	U	NA		NA		NA		NA		NA		0.19	U	NA		NA		NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.072	U	NA		NA		NA		0.074	U	NA		NA		NA		NA		NA		0.079	U	NA		NA		NA	
	Bis(2-chloroethyl)ether	mg/kg	0.7	NS	NS	0.072	U	NA		NA		NA		0.074	U	NA		NA		NA		NA		NA		0.079	U	NA		NA		NA	
	2-Chloronaphthalene	mg/kg	1,000	NS	NS	0.17	U	NA		NA		NA		0.18	U	NA		NA		NA		NA		NA		0.19	U	NA		NA		NA	
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	0.17	U	NA		NA		NA		0.18	U	NA		NA		NA		NA		NA		0.19	U	NA		NA		NA	
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	0.17	U	NA		NA		NA		0.18	U	NA		NA		NA		NA		NA		0.19	U	NA		NA		NA	
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	0.072	U	NA		NA		NA		0.074	U	NA		NA		NA		NA		NA		0.079	U	NA		NA		NA	
	3,3'-Dichlorobenzidine	mg/kg	3	NS	NS	0.17	U	NA		NA		NA		0.18	U	NA		NA		NA		NA		NA		0.19	U	NA		NA		NA	
	2,4-Dinitrotoluene	mg/kg	0.7	NS	NS	0.072	U	NA		NA		NA		0.074	U	NA		NA		NA		NA		NA		0.079	U	NA		NA		NA	
	2,6-Dinitrotoluene	mg/kg	100	NS	NS	0.17	U	NA		NA		NA		0.18	U	NA		NA		NA		NA		NA		0.19	U	NA		NA		NA	
	Azobenzene	mg/kg	NS	NS	NS	0.17	U	NA		NA		NA		0.18	U	NA		NA		NA		NA		NA		0.19	U	NA		NA		NA	
	Fluoranthene	mg/kg	1,000	NS	NS	0.1	U	NA		NA		NA		0.19		NA		NA		NA		NA		NA		6.6		NA		NA		NA	
	4-Bromophenyl phenyl ether	mg/kg	100	NS	NS	0.17	U	NA		NA		NA		0.18	U	NA		NA		NA		NA		NA		0.19	U	NA		NA		NA	
	Bis(2-chloroisopropyl)ether	mg/kg	0.7	NS	NS	0.072	U	NA		NA		NA		0.074	U	NA		NA		NA		NA		NA		0.079	U	NA		NA		NA	
	Bis(2-chloroethoxy)methane	mg/kg	500	NS	NS	0.18	U	NA		NA		NA		0.19	U	NA		NA		NA		NA		NA		0.2	U	NA		NA		NA	
	Hexachlorobutadiene	mg/kg	30	NS	NS	0.17	U	NA		NA		NA		0.18	U	NA		NA		NA		NA		NA		0.19	U	NA		NA		NA	
	Hexachloroethane	mg/kg	0.7	NS	NS	0.072	U	NA		NA		NA		0.074	U	NA		NA		NA		NA		NA		0.079	U	NA		NA		NA	
	Isophorone	mg/kg	100	NS	NS	0.15	U	NA		NA		NA		0.16	U	NA		NA		NA		NA		NA		0.17	U	NA		NA		NA	
	Naphthalene	mg/kg	4	NS	NS	0.17	U	NA		NA		NA		0.18	U	NA		NA		NA		NA		NA		0.56		NA		NA		NA	
	Nitrobenzene	mg/kg	500	NS	NS	0.15	U	NA		NA		NA		0.16	U	NA		NA		NA		NA		NA		0.17	U	NA		NA		NA	
	Bis(2-Ethylhexyl)phthalate	mg/kg	90	NS	NS	0.17	U	NA		NA		NA		0.18	U	NA		NA		NA		NA		NA		0.19	U	NA		NA		NA	
	Butyl benzyl phthalate	mg/kg	100	NS	NS	0.17	U	NA		NA		NA		0.18	U	NA		NA		NA		NA		NA		0.19	U	NA		NA		NA	
	Di-n-butylphthalate	mg/kg	50	NS	NS	0.17	U	NA		NA		NA		0.18	U	NA		NA		NA		NA		NA		0.19	U	NA		NA		NA	
	Di-n-octylphthalate	mg/kg	1,000	NS	NS	0.17	U	NA		NA		NA		0.18	U	NA		NA		NA		NA		NA		0.19	U	NA		NA		NA	
	Diethyl phthalate	mg/kg	10	NS	NS	0.17	U	NA		NA		NA		0.18	U	NA		NA		NA		NA		NA		0.19	U	NA		NA		NA	
	Dimethyl phthalate	mg/kg	0.7	NS	NS	0.072	U	NA																									

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth^: Sample Date:						GLX-TPW-603A		GLX-TPW-604				GLX-TPW-604A		GLX-TPW-605						GLX-TPW-605A		GLX-TPW-606												
						0-5 ft		0-5 ft		0-2/1 ft		2-5/3 ft		0-5 ft		0-8 ft		0-2/1 ft		2-5/3 ft		3 ft		5-8/8 ft		0-8 ft		0-5 ft		0-2/1 ft		2-5/4 ft		
						02/08/2020		10/20/2019		10/20/2019		10/20/2019		02/08/2020		10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		02/08/2020		11/02/2019		11/02/2019		11/02/2019		
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**															Field Dup														
	2,4-Dinitrophenol	mg/kg	3	NS	NS	0.82	U		NA		NA		0.85	U		NA		NA		NA		NA		0.9	U		NA		NA		NA			
	Pentachlorophenol	mg/kg	3	NS	NS	0.34	U		NA		NA		0.35	U		NA		NA		NA		NA		0.38	U		NA		NA		NA			
	Phenol	mg/kg	1	NS	NS	0.17	U		NA		NA		0.18	U		NA		NA		NA		NA		0.19	U		NA		NA		NA			
	2-Methylphenol	mg/kg	500	NS	NS	0.17	U		NA		NA		0.18	U		NA		NA		NA		NA		0.19	U		NA		NA		NA			
	3-Methylphenol/4-Methylphenol	mg/kg	NS	NS	NS	0.24	U		NA		NA		0.25	U		NA		NA		NA		NA		0.27	U		NA		NA		NA			
	2,4,5-Trichlorophenol	mg/kg	4	NS	NS	0.17	U		NA		NA		0.18	U		NA		NA		NA		NA		0.19	U		NA		NA		NA			
	Pyridine	mg/kg	500	NS	NS	0.18	U		NA		NA		0.19	U		NA		NA		NA		NA		0.2	U		NA		NA		NA			
	Total SVOCs	mg/kg	N/A	100	100	ND			NA		NA		0.780			NA		NA		NA		NA		74.2			NA		NA		NA			
Pesticides																																		
	Delta-BHC	mg/kg	10	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	Lindane	mg/kg	0.003	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	Alpha-BHC	mg/kg	50	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	Beta-BHC	mg/kg	10	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	Heptachlor	mg/kg	0.3	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	Aldrin	mg/kg	0.08	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	Heptachlor epoxide	mg/kg	0.1	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	Endrin	mg/kg	10	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	Endrin ketone	mg/kg	10	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	Dieldrin	mg/kg	0.08	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	4,4'-DDE	mg/kg	6	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	4,4'-DDD	mg/kg	8	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	4,4'-DDT	mg/kg	6	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	Endosulfan I	mg/kg	0.5	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	Endosulfan II	mg/kg	0.5	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	Endosulfan sulfate	mg/kg	0.5	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	Methoxychlor	mg/kg	200	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	Chlordane	mg/kg	0.7	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	Hexachlorobenzene	mg/kg	0.7	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
Herbicides																																		
	MCPP	mg/kg	NS	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	MCPA	mg/kg	100	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	Dalapon	mg/kg	1,000	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	Dicamba	mg/kg	500	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	Dichloroprop	mg/kg	NS	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	2,4-D	mg/kg	100	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	2,4-DB	mg/kg	100	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	2,4,5-T	mg/kg	100	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
	2,4,5-TP (Silvex)	mg/kg	100	NS	NS	NA			NA		NA		NA			NA		NA		NA		NA		NA			NA		NA		NA			
PCB Aroclors																																		
	Aroclor-1016	mg/kg	1	NS	NS	NA			0.035	U		NA		NA			0.037	U		NA		NA		NA			NA		0.0349	U		NA		NA
	Aroclor-1221	mg/kg	1	NS	NS	NA			0.035	U		NA		NA			0.037	U		NA		NA		NA			NA		0.0349	U		NA		NA
	Aroclor-1232	mg/kg	1	NS	NS	NA			0.035	U		NA		NA			0.037	U		NA		NA		NA			NA		0.0349	U		NA		NA
	Aroclor-1242	mg/kg	1	NS	NS	NA			0.035	U		NA		NA			0.037	U		NA		NA		NA			NA		0.0349	U		NA		NA
	Aroclor-1248	mg/kg	1	NS	NS	NA			0.035	U		NA		NA			0.037	U		NA		NA		NA			NA		0.0349	U		NA		NA
	Aroclor-1254	mg/kg	1	NS	NS	NA			0.035	U		NA		NA			0.037	U		NA		NA		NA			NA		0.0349	U		NA		NA
	Aroclor-1260	mg/kg	1	NS	NS	NA			0.035	U		NA		NA			0.037	U		NA		NA		NA			NA		0.0349	U		NA		NA
	Aroclor-1262	mg/kg	1	NS	NS	NA			0.035	U		NA		NA			0.037	U		NA		NA		NA			NA		0.0349	U		NA		NA
	Aroclor-1268	mg/kg	1	NS	NS	NA			0.035	U		NA		NA			0.037	U		NA		NA		NA			NA		0.0349	U		NA		NA
	PCBs, Total	mg/kg	1	2	2	NA			0.035	U		NA		NA			0.037	U		NA		NA		NA			NA		0.0349	U		NA		NA
TPH																																		
	Total Petroleum Hydrocarbons C10-C36	mg/kg	1,000	2,500	5,000	34	U		NA		NA		56.4			NA		NA		NA		NA		390			NA		NA		NA		NA	
Metals, total																																		
	Antimony	mg/kg	20	NS	NS	NA			1.99	U		NA		NA			2.14	U		NA		NA		NA			2.11	U		NA		NA		NA
	Arsenic	mg/kg	20		40	NA			10.5			NA		NA			6.98			NA		NA		NA			6.58			NA		NA		NA
	Barium	mg/kg	1,000	NS	NS	NA			28.7			NA		NA			29.3			NA		NA		NA			35.6			NA		NA		NA
	Beryllium	mg/kg	90	NS	NS	NA			0.199	U		NA		NA			0.214	U		NA		NA		NA			0.211	U		NA		NA		NA
	Cadmium	mg/kg	70	30	80	NA			0.399	U		NA		NA			0.428	U		NA		NA		NA	</									

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth^: Sample Date:						GLX-TPW-603A	GLX-TPW-604			GLX-TPW-604A	GLX-TPW-605					GLX-TPW-605A	GLX-TPW-606			
						0-5 ft	0-5 ft	0-2/1 ft	2-5/3 ft	0-5 ft	0-8 ft	0-2/1 ft	2-5/3 ft	3 ft	5-8/8 ft	0-8 ft	0-5 ft	0-2/1 ft	2-5/4 ft	
						02/08/2020	10/20/2019	10/20/2019	10/20/2019	02/08/2020	10/20/2019	10/20/2019	10/20/2019	10/20/2019	10/20/2019	02/08/2020	11/02/2019	11/02/2019	11/02/2019	
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**										Field Dup					
	Vanadium	mg/kg	400	NS	NS	NA	12.0	NA	NA	NA	14.2	NA	NA	NA	NA	NA	17.5	NA	NA	NA
	Zinc	mg/kg	1,000	NS	NS	NA	33.3	NA	NA	NA	38.5	NA	NA	NA	NA	NA	35.5	NA	NA	NA

TABLE 2
Additional Characterization Soil Ananalytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth^:						GLX-TPW-603A	GLX-TPW-604				GLX-TPW-604A	GLX-TPW-605						GLX-TPW-605A	GLX-TPW-606					
Sample Date:						0-5 ft	0-5 ft	0-2/1 ft	2-5/3 ft	0-5 ft	0-8 ft	0-2/1 ft	2-5/3 ft	3 ft	5-8/8 ft	0-8 ft	0-5 ft	0-2/1 ft	2-5/4 ft					
						02/08/2020	10/20/2019	10/20/2019	10/20/2019	02/08/2020	10/20/2019	10/20/2019	10/20/2019	10/20/2019	10/20/2019	02/08/2020	11/02/2019	11/02/2019	11/02/2019					
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**											Field Dup								
Metals, TCLP																								
	Lead	mg/L	5*	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry																								
	Ignitability	none	NS	NS	NS	NI	NA	NA	NA	NI	NA	NA	NA	NA	NA	NI	NA	NA	NA	NA	NA	NA	NA	NA
	Specific conductance	umhos/cm	NS	4,000	8,000	13	NA	NA	NA	11	NA	NA	NA	NA	NA	13	NA	NA	NA	NA	NA	NA	NA	NA
	pH	su	NS	>2 <12.5	>2 <12.5	7.7	NA	7.5	6.8	6.9	NA	7.5	6.6	NA	5.5	7.2	NA	6.8	6.4					
	Reactive Cyanide	mg/kg	NS	< 250	< 250	10	U	NA	NA	10	U	NA	NA	NA	NA	10	U	NA	NA	NA	NA	NA	NA	NA
	Reactive Sulfide	mg/kg	NS	< 500	< 500	10	U	NA	NA	10	U	NA	NA	NA	NA	10	U	NA	NA	NA	NA	NA	NA	NA

Notes:

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

mg/L - milligrams per liter.

su - Standard unit.

umhos/cm - Micro-mhos per centimeter.

E - Value exceeds calibration range.

I - The lower value for the two columns has been reported due to obvious interference.

NA - Sample not analyzed for the listed analyte.

N/A - Not available/applicable.

ND - Not detected.

NI - Not ignitable.

NS - No MassDEP standards exist for this analyte.

P - The RPD (relative percent difference) between the results for the two columns exceeds the method-specified criteria.

U - Analyte was not detected at specified quantitation limit.

Values in **bold** indicate the analyte was detected.

Values shown in bold and shaded type are equal to RCS-1 or exceed one or more of the listed MassDEP standards/criteria.

VOCs - Volatile Organic Compounds.

SVOCs - Semivolatile Organic Compounds.

PCBs - Polychlorinated Biphenyls.

TPH - Total Petroleum Hydrocarbons.

TCLP - Toxicity Characteristic Leaching Procedure.

RC - Reportable concentration.

* - EPA SW-846 Chapter 7, Table 7-1, Maximum Concentration of Contaminants for Toxicity Characteristic.

** - Reuse and Disposal of Contaminated Soil at Massachusetts Landfills, MassDEP Policy # COMM-97-001, August 1997.

^ - Sample depth for other/VOCs analysis; otherwise for all the analyses.

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth: Sample Date:						GLX-TPW-606A		GLX-TPW-607						GLX-TPW-607A				GLX-TPW-608						GLX-TPW-608A		GLX-TPW-609						GLX-TPW-609A	
						0-5 ft		0-2/0.6 ft		2-5/4.6 ft		0-5 ft		0-5 ft		0-5 ft		0-2/1 ft		2-5/4 ft		0-5 ft		0-5 ft		0-2/1 ft		2-5/4 ft		0-5 ft			
						02/08/2020		10/20/2019		10/20/2019		10/20/2019		02/08/2020		02/08/2020		11/02/2019		11/02/2019		11/02/2019		02/08/2020		11/02/2019		11/02/2019		11/02/2019		02/08/2020	
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**									Field Dup																			
VOCs																																	
	Methylene chloride	mg/kg	0.1	NS	NS	NA		NA		0.0038	U	0.0039	U	NA		NA		NA		0.0035	U	0.0047	U	NA		NA		0.0034	U	0.0032	U	NA	
	1,1-Dichloroethane	mg/kg	0.4	NS	NS	NA		NA		0.00075	U	0.00078	U	NA		NA		NA		0.00071	U	0.00094	U	NA		NA		0.00069	U	0.00064	U	NA	
	Chloroform	mg/kg	0.2	NS	NS	NA		NA		0.0011	U	0.0012	U	NA		NA		NA		0.0011	U	0.0014	U	NA		NA		0.001	U	0.00096	U	NA	
	Carbon tetrachloride	mg/kg	5	NS	NS	NA		NA		0.00075	U	0.00078	U	NA		NA		NA		0.00071	U	0.00094	U	NA		NA		0.00069	U	0.00064	U	NA	
	1,2-Dichloropropane	mg/kg	0.1	NS	NS	NA		NA		0.00075	U	0.00078	U	NA		NA		NA		0.00071	U	0.00094	U	NA		NA		0.00069	U	0.00064	U	NA	
	Dibromochloromethane	mg/kg	0.005	NS	NS	NA		NA		0.00075	U	0.00078	U	NA		NA		NA		0.00071	U	0.00094	U	NA		NA		0.00069	U	0.00064	U	NA	
	1,1,2-Trichloroethane	mg/kg	0.1	NS	NS	NA		NA		0.00075	U	0.00078	U	NA		NA		NA		0.00071	U	0.00094	U	NA		NA		0.00069	U	0.00064	U	NA	
	Tetrachloroethene	mg/kg	1	NS	NS	NA		NA		0.00038	U	0.00039	U	NA		NA		NA		0.00035	U	0.00047	U	NA		NA		0.00034	U	0.00032	U	NA	
	Chlorobenzene	mg/kg	1	NS	NS	NA		NA		0.00038	U	0.00039	U	NA		NA		NA		0.00035	U	0.00047	U	NA		NA		0.00034	U	0.00032	U	NA	
	Trichlorofluoromethane	mg/kg	1,000	NS	NS	NA		NA		0.0030	U	0.0031	U	NA		NA		NA		0.0028	U	0.0037	U	NA		NA		0.0027	U	0.0026	U	NA	
	1,2-Dichloroethane	mg/kg	0.1	NS	NS	NA		NA		0.00075	U	0.00078	U	NA		NA		NA		0.00071	U	0.00094	U	NA		NA		0.00069	U	0.00064	U	NA	
	1,1,1-Trichloroethane	mg/kg	30	NS	NS	NA		NA		0.00038	U	0.00039	U	NA		NA		NA		0.00035	U	0.00047	U	NA		NA		0.00034	U	0.00032	U	NA	
	Bromodichloromethane	mg/kg	0.1	NS	NS	NA		NA		0.00038	U	0.00039	U	NA		NA		NA		0.00035	U	0.00047	U	NA		NA		0.00034	U	0.00032	U	NA	
	trans-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		NA		0.00075	U	0.00078	U	NA		NA		NA		0.00071	U	0.00094	U	NA		NA		0.00069	U	0.00064	U	NA	
	cis-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		NA		0.00038	U	0.00039	U	NA		NA		NA		0.00035	U	0.00047	U	NA		NA		0.00034	U	0.00032	U	NA	
	1,3-Dichloropropene, Total	mg/kg	0.01	NS	NS	NA		NA		0.00038	U	0.00039	U	NA		NA		NA		0.00035	U	0.00047	U	NA		NA		0.00034	U	0.00032	U	NA	
	1,1-Dichloropropene	mg/kg	0.01	NS	NS	NA		NA		0.00038	U	0.00039	U	NA		NA		NA		0.00035	U	0.00047	U	NA		NA		0.00034	U	0.00032	U	NA	
	Bromoform	mg/kg	0.1	NS	NS	NA		NA		0.0030	U	0.0031	U	NA		NA		NA		0.0028	U	0.0037	U	NA		NA		0.0027	U	0.0026	U	NA	
	1,1,2,2-Tetrachloroethane	mg/kg	0.005	NS	NS	NA		NA		0.00038	U	0.00039	U	NA		NA		NA		0.00035	U	0.00047	U	NA		NA		0.00034	U	0.00032	U	NA	
	Benzene	mg/kg	2	NS	NS	NA		NA		0.00038	U	0.00039	U	NA		NA		NA		0.00035	U	0.00047	U	NA		NA		0.00034	U	0.00032	U	NA	
	Toluene	mg/kg	30	NS	NS	NA		NA		0.00075	U	0.00078	U	NA		NA		NA		0.00071	U	0.00094	U	NA		NA		0.00069	U	0.00064	U	NA	
	Ethylbenzene	mg/kg	40	NS	NS	NA		NA		0.00075	U	0.00078	U	NA		NA		NA		0.00071	U	0.00094	U	NA		NA		0.00069	U	0.00064	U	NA	
	Chloromethane	mg/kg	100	NS	NS	NA		NA		0.0030	U	0.0031	U	NA		NA		NA		0.0028	U	0.0037	U	NA		NA		0.0027	U	0.0026	U	NA	
	Bromomethane	mg/kg	0.5	NS	NS	NA		NA		0.0015	U	0.0016	U	NA		NA		NA		0.0014	U	0.0019	U	NA		NA		0.0014	U	0.0013	U	NA	
	Vinyl chloride	mg/kg	0.7	NS	NS	NA		NA		0.00075	U	0.00078	U	NA		NA		NA		0.00071	U	0.00094	U	NA		NA		0.00069	U	0.00064	U	NA	
	Chloroethane	mg/kg	100	NS	NS	NA		NA		0.0015	U	0.0016	U	NA		NA		NA		0.0014	U	0.0019	U	NA		NA		0.0014	U	0.0013	U	NA	
	1,1-Dichloroethene	mg/kg	3	NS	NS	NA		NA		0.00075	U	0.00078	U	NA		NA		NA		0.00071	U	0.00094	U	NA		NA		0.00069	U	0.00064	U	NA	
	trans-1,2-Dichloroethene	mg/kg	1	NS	NS	NA		NA		0.0011	U	0.0012	U	NA		NA		NA		0.0011	U	0.0014	U	NA		NA		0.001	U	0.00096	U	NA	
	Trichloroethene	mg/kg	0.3	NS	NS	NA		NA		0.00038	U	0.00039	U	NA		NA		NA		0.00035	U	0.00047	U	NA		NA		0.00034	U	0.00032	U	NA	
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	NA		NA		0.0015	U	0.0016	U	NA		NA		NA		0.0014	U	0.0019	U	NA		NA		0.0014	U	0.0013	U	NA	
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	NA		NA		0.0015	U	0.0016	U	NA		NA		NA		0.0014	U	0.0019	U	NA		NA		0.0014	U	0.0013	U	NA	
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	NA		NA		0.0015	U	0.0016	U	NA		NA		NA		0.0014	U	0.0019	U	NA		NA		0.0014	U	0.0013	U	NA	
	Methyl tert butyl ether	mg/kg	0.1	NS	NS	NA		NA		0.0015	U	0.0016	U	NA		NA		NA		0.0014	U	0.0019	U	NA		NA		0.0014	U	0.0013	U	NA	
	p/m-Xylene	mg/kg	100	NS	NS	NA		NA		0.0015	U	0.0016	U	NA		NA		NA		0.0014	U	0.0019	U	NA		NA		0.0014	U	0.0013	U	NA	
	o-Xylene	mg/kg	100	NS																													

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth: Sample Date:						GLX-TPW-606A	GLX-TPW-607						GLX-TPW-607A				GLX-TPW-608						GLX-TPW-608A	GLX-TPW-609						GLX-TPW-609A		
						0-5 ft	0-5 ft			0-2/0.6 ft			2-5/4.6 ft			0-5 ft		0-5 ft		0-5 ft		0-5 ft		0-5 ft	0-5 ft			0-5 ft			0-5 ft	
						02/08/2020	10/20/2019	10/20/2019	10/20/2019	02/08/2020	02/08/2020	11/02/2019	11/02/2019	11/02/2019	02/08/2020	11/02/2019	11/02/2019	11/02/2019	02/08/2020	11/02/2019	11/02/2019	11/02/2019	02/08/2020									
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**							Field Dup																				
	Naphthalene	mg/kg	4	NS	NS	NA	NA	0.0030	U	0.0031	U	NA	NA	NA	0.0028	U	0.0037	U	NA	NA	0.0027	U	0.0026	U	NA	NA	0.0027	U	0.0026	U	NA	NA
	n-Propylbenzene	mg/kg	100	NS	NS	NA	NA	0.00075	U	0.00078	U	NA	NA	NA	0.00071	U	0.00094	U	NA	NA	0.00069	U	0.00064	U	NA	NA	0.00069	U	0.00064	U	NA	NA
	1,2,3-Trichlorobenzene	mg/kg	NS	NS	NS	NA	NA	0.0015	U	0.0016	U	NA	NA	NA	0.0014	U	0.0019	U	NA	NA	0.0014	U	0.0013	U	NA	NA	0.0014	U	0.0013	U	NA	NA
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	NA	NA	0.0015	U	0.0016	U	NA	NA	NA	0.0014	U	0.0019	U	NA	NA	0.0014	U	0.0013	U	NA	NA	0.0014	U	0.0013	U	NA	NA
	1,3,5-Trimethylbenzene	mg/kg	10	NS	NS	NA	NA	0.0015	U	0.0016	U	NA	NA	NA	0.0014	U	0.0019	U	NA	NA	0.0014	U	0.0013	U	NA	NA	0.0014	U	0.0013	U	NA	NA
	1,2,4-Trimethylbenzene	mg/kg	1,000	NS	NS	NA	NA	0.0015	U	0.0016	U	NA	NA	NA	0.0014	U	0.0019	U	NA	NA	0.0014	U	0.0013	U	NA	NA	0.0014	U	0.0013	U	NA	NA
	Ethyl ether	mg/kg	100	NS	NS	NA	NA	0.0015	U	0.0016	U	NA	NA	NA	0.0014	U	0.0019	U	NA	NA	0.0014	U	0.0013	U	NA	NA	0.0014	U	0.0013	U	NA	NA
	Isopropyl Ether	mg/kg	100	NS	NS	NA	NA	0.0015	U	0.0016	U	NA	NA	NA	0.0014	U	0.0019	U	NA	NA	0.0014	U	0.0013	U	NA	NA	0.0014	U	0.0013	U	NA	NA
	Ethyl-Tert-Butyl-Ether	mg/kg	NS	NS	NS	NA	NA	0.0015	U	0.0016	U	NA	NA	NA	0.0014	U	0.0019	U	NA	NA	0.0014	U	0.0013	U	NA	NA	0.0014	U	0.0013	U	NA	NA
	Tertiary-Amyl Methyl Ether	mg/kg	NS	NS	NS	NA	NA	0.0015	U	0.0016	U	NA	NA	NA	0.0014	U	0.0019	U	NA	NA	0.0014	U	0.0013	U	NA	NA	0.0014	U	0.0013	U	NA	NA
	1,4-Dioxane	mg/kg	0.2	NS	NS	NA	NA	0.06	U	0.063	U	NA	NA	NA	0.057	U	0.075	U	NA	NA	0.055	U	0.051	U	NA	NA	0.055	U	0.051	U	NA	NA
	Total VOCs	mg/kg	N/A	4	10	NA	NA	0.066		0.030		NA	NA	NA	0.020		0.053		NA	NA	0.070		0.092		NA	NA	0.070		0.092		NA	NA
SVOCs																																
	Acenaphthene	mg/kg	4	NS	NS	0.2	NA	NA		NA		0.15	U	0.15	U	NA	NA	NA	0.14	U	NA	NA	NA	NA	NA	NA	0.14	U	NA	NA	0.14	U
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	0.18	U	NA		NA		0.19	U	0.18	U	NA	NA	NA	0.18	U	NA	NA	NA	NA	NA	NA	0.18	U	NA	NA	0.18	U
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.074	U	NA		NA		0.08	U	0.078	U	NA	NA	NA	0.075	U	NA	NA	NA	NA	NA	NA	0.075	U	NA	NA	0.075	U
	Bis(2-chloroethyl)ether	mg/kg	0.7	NS	NS	0.074	U	NA		NA		0.08	U	0.078	U	NA	NA	NA	0.075	U	NA	NA	NA	NA	NA	NA	0.075	U	NA	NA	0.075	U
	2-Chloronaphthalene	mg/kg	1,000	NS	NS	0.18	U	NA		NA		0.19	U	0.18	U	NA	NA	NA	0.18	U	NA	NA	NA	NA	NA	NA	0.18	U	NA	NA	0.18	U
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	0.18	U	NA		NA		0.19	U	0.18	U	NA	NA	NA	0.18	U	NA	NA	NA	NA	NA	NA	0.18	U	NA	NA	0.18	U
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	0.18	U	NA		NA		0.19	U	0.18	U	NA	NA	NA	0.18	U	NA	NA	NA	NA	NA	NA	0.18	U	NA	NA	0.18	U
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	0.074	U	NA		NA		0.08	U	0.078	U	NA	NA	NA	0.075	U	NA	NA	NA	NA	NA	NA	0.075	U	NA	NA	0.075	U
	3,3'-Dichlorobenzidine	mg/kg	3	NS	NS	0.18	U	NA		NA		0.19	U	0.18	U	NA	NA	NA	0.18	U	NA	NA	NA	NA	NA	NA	0.18	U	NA	NA	0.18	U
	2,4-Dinitrotoluene	mg/kg	0.7	NS	NS	0.074	U	NA		NA		0.08	U	0.078	U	NA	NA	NA	0.075	U	NA	NA	NA	NA	NA	NA	0.075	U	NA	NA	0.075	U
	2,6-Dinitrotoluene	mg/kg	100	NS	NS	0.18	U	NA		NA		0.19	U	0.18	U	NA	NA	NA	0.18	U	NA	NA	NA	NA	NA	NA	0.18	U	NA	NA	0.18	U
	Azobenzene	mg/kg	NS	NS	NS	0.18	U	NA		NA		0.19	U	0.18	U	NA	NA	NA	0.18	U	NA	NA	NA	NA	NA	NA	0.18	U	NA	NA	0.18	U
	Fluoranthene	mg/kg	1,000	NS	NS	1.7	NA	NA		NA		29		86		NA	NA	NA	0.11	U	NA	NA	NA	NA	NA	NA	0.11	U	NA	NA	0.11	U
	4-Bromophenyl phenyl ether	mg/kg	100	NS	NS	0.18	U	NA		NA		0.19	U	0.18	U	NA	NA	NA	0.18	U	NA	NA	NA	NA	NA	NA	0.18	U	NA	NA	0.18	U
	Bis(2-chloroisopropyl)ether	mg/kg	0.7	NS	NS	0.074	U	NA		NA		0.08	U	0.078	U	NA	NA	NA	0.075	U	NA	NA	NA	NA	NA	NA	0.075	U	NA	NA	0.075	U
	Bis(2-chloroethoxy)methane	mg/kg	500	NS	NS	0.19	U	NA		NA		0.21	U	0.2	U	NA	NA	NA	0.19	U	NA	NA	NA	NA	NA	NA	0.19	U	NA	NA	0.19	U
	Hexachlorobutadiene	mg/kg	30	NS	NS	0.18	U	NA		NA		0.19	U	0.18	U	NA	NA	NA	0.18	U	NA	NA	NA	NA	NA	NA	0.18	U	NA	NA	0.18	U
	Hexachloroethane	mg/kg	0.7	NS	NS	0.074	U	NA		NA		0.08	U	0.078	U	NA	NA	NA	0.075	U	NA	NA	NA	NA	NA	NA	0.075	U	NA	NA	0.075	U
	Isophorone	mg/kg	100	NS	NS	0.16	U	NA		NA		0.17	U	0.17	U	NA	NA	NA	0.16	U	NA	NA	NA	NA	NA	NA	0.16	U	NA	NA	0.16	U
	Naphthalene	mg/kg	4	NS	NS	0.33		NA		NA		0.3		0.92		NA	NA	NA	0.18	U	NA	NA	NA	NA	NA	NA	0.18	U	NA	NA	0.18	U
	Nitrobenzene	mg/kg	500	NS	NS	0.16	U	NA		NA		0.17	U	0.17	U	NA	NA	NA	0.16	U	NA	NA	NA	NA	NA	NA	0.16	U	NA	NA	0.16	U
	Bis(2-Ethylhexyl)phthalate	mg/kg	90	NS	NS	0.18	U	NA		NA		0.19	U	0.18	U	NA	NA	NA	0.18	U	NA	NA	NA	NA	NA	NA	0.18	U	NA	NA	0.18	U
	Butyl benzyl phthalate	mg/kg	100	NS	NS	0.18	U	NA		NA		0.19	U	0.18	U	NA	NA	NA	0.18	U	NA	NA	NA	NA	NA	NA	0.18	U				

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth: Sample Date:						GLX-TPW-606A		GLX-TPW-607				GLX-TPW-607A				GLX-TPW-608				GLX-TPW-608A		GLX-TPW-609				GLX-TPW-609A							
						0-5 ft		0-5 ft		0-2/0.6 ft		2-5/4.6 ft		0-5 ft		0-5 ft		0-5 ft		0-2/1 ft		2-5/4 ft		0-5 ft		0-5 ft		0-2/1 ft		2-5/4 ft		0-5 ft	
						02/08/2020		10/20/2019		10/20/2019		10/20/2019		02/08/2020		02/08/2020		11/02/2019		11/02/2019		11/02/2019		02/08/2020		11/02/2019		11/02/2019		11/02/2019		02/08/2020	
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**							Field Dup																					
	2,4-Dinitrophenol	mg/kg	3	NS	NS	0.85	U	NA		NA		NA		0.92	U	0.89	U	NA		NA		NA		0.86	U	NA		NA		0.86	U		
	Pentachlorophenol	mg/kg	3	NS	NS	0.36	U	NA		NA		NA		0.38	U	0.37	U	NA		NA		NA		0.36	U	NA		NA		0.36	U		
	Phenol	mg/kg	1	NS	NS	0.18	U	NA		NA		NA		0.21		0.5		NA		NA		NA		0.18	U	NA		NA		0.18	U		
	2-Methylphenol	mg/kg	500	NS	NS	0.18	U	NA		NA		NA		0.19	U	0.18	U	NA		NA		NA		0.18	U	NA		NA		0.18	U		
	3-Methylphenol/4-Methylphenol	mg/kg	NS	NS	NS	0.26	U	NA		NA		NA		0.28	U	0.33		NA		NA		NA		0.26	U	NA		NA		0.26	U		
	2,4,5-Trichlorophenol	mg/kg	4	NS	NS	0.18	U	NA		NA		NA		0.19	U	0.18	U	NA		NA		NA		0.18	U	NA		NA		0.18	U		
	Pyridine	mg/kg	500	NS	NS	0.19	U	NA		NA		NA		0.21	U	0.2	U	NA		NA		NA		0.19	U	NA		NA		0.19	U		
	Total SVOCs	mg/kg	N/A	100	100	10.2		NA		NA		NA		140		424		NA		NA		NA		ND		NA		NA		NA		ND	
Pesticides																																	
	Delta-BHC	mg/kg	10	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Lindane	mg/kg	0.003	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Alpha-BHC	mg/kg	50	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Beta-BHC	mg/kg	10	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Heptachlor	mg/kg	0.3	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Aldrin	mg/kg	0.08	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Heptachlor epoxide	mg/kg	0.1	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Endrin	mg/kg	10	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Endrin ketone	mg/kg	10	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Dieldrin	mg/kg	0.08	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	4,4'-DDE	mg/kg	6	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	4,4'-DDD	mg/kg	8	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	4,4'-DDT	mg/kg	6	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Endosulfan I	mg/kg	0.5	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Endosulfan II	mg/kg	0.5	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Endosulfan sulfate	mg/kg	0.5	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Methoxychlor	mg/kg	200	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Chlordane	mg/kg	0.7	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
Herbicides																																	
	MCPP	mg/kg	NS	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	MCPA	mg/kg	100	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Dalapon	mg/kg	1,000	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Dicamba	mg/kg	500	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Dichloroprop	mg/kg	NS	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	2,4-D	mg/kg	100	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	2,4-DB	mg/kg	100	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	2,4,5-T	mg/kg	100	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	2,4,5-TP (Silvex)	mg/kg	100	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
PCB Aroclors																																	
	Aroclor-1016	mg/kg	1	NS	NS	NA		0.035	U	NA		NA		NA		NA		0.0362	U	NA		NA		NA		0.0351	U	NA		NA		NA	
	Aroclor-1221	mg/kg	1	NS	NS	NA		0.035	U	NA		NA		NA		NA		0.0362	U	NA		NA		NA		0.0351	U	NA		NA		NA	
	Aroclor-1232	mg/kg	1	NS	NS	NA		0.035	U	NA		NA		NA		NA		0.0362	U	NA		NA		NA		0.0351	U	NA		NA		NA	
	Aroclor-1242	mg/kg	1	NS	NS	NA		0.035	U	NA		NA		NA		NA		0.0362	U	NA		NA		NA		0.0351	U	NA		NA		NA	
	Aroclor-1248	mg/kg	1	NS	NS	NA		0.035	U	NA		NA		NA		NA		0.0362	U	NA		NA		NA		0.0351	U	NA		NA		NA	
	Aroclor-1254	mg/kg	1	NS	NS	NA		0.035	U	NA		NA		NA		NA		0.0362	U	NA		NA		NA		0.0351	U	NA		NA		NA	
	Aroclor-1260	mg/kg	1	NS	NS	NA		0.035	U	NA		NA		NA		NA		0.0362	U	NA		NA		NA		0.0351	U	NA		NA		NA	
	Aroclor-1262	mg/kg	1	NS	NS	NA		0.035	U	NA		NA		NA		NA		0.0362	U	NA		NA		NA		0.0351	U	NA		NA		NA	
	Aroclor-1268	mg/kg	1	NS	NS	NA		0.035	U	NA		NA		NA		NA		0.0362	U	NA		NA		NA		0.0351	U	NA		NA		NA	
	PCBs, Total	mg/kg	1	2	2	NA		0.035	U	NA		NA		NA		NA		0.0362	U	NA		NA		NA		0.0351	U	NA		NA		NA	
TPH																																	
	Total Petroleum Hydrocarbons C10-C36	mg/kg	1,000	2,500	5,000	52.7		NA		NA		NA		341		548		NA		NA		NA		34.7	U	NA		NA		NA		35.9	U
Metals, total																																	
	Antimony	mg/kg	20	NS	NS	NA		2.09	U	NA		NA		NA		NA		2.18	U	NA		NA		NA		2.08	U	NA		NA		NA	
	Arsenic	mg/kg	20	40	40	NA		8.05		NA		NA		NA		NA		4.94		NA		NA		NA		5.05		NA		NA		NA	
	Barium	mg/kg	1,000	NS	NS	NA		23.7		NA		NA		NA		NA		17.0		NA		NA		NA		23.3		NA		NA		NA	
	Beryllium	mg/kg	90	NS	NS	NA		0.209	U	NA		NA		NA		NA		0.218	U	NA		NA		NA		0.208	U	NA		NA		</	

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth^: Sample Date:						GLX-TPW-606A	GLX-TPW-607			GLX-TPW-607A		GLX-TPW-608			GLX-TPW-608A	GLX-TPW-609			GLX-TPW-609A
						0-5 ft	0-5 ft	0-2/0.6 ft	2-5/4.6 ft	0-5 ft	0-5 ft	0-5 ft	0-2/1 ft	2-5/4 ft	0-5 ft	0-5 ft	0-2/1 ft	2-5/4 ft	0-5 ft
						02/08/2020	10/20/2019	10/20/2019	10/20/2019	02/08/2020	02/08/2020	11/02/2019	11/02/2019	11/02/2019	02/08/2020	11/02/2019	11/02/2019	11/02/2019	02/08/2020
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**						Field Dup								
	Vanadium	mg/kg	400	NS	NS	NA	21.9	NA	NA	NA	NA	12.4	NA	NA	NA	20.3	NA	NA	NA
	Zinc	mg/kg	1,000	NS	NS	NA	99.7	NA	NA	NA	NA	26.9	NA	NA	NA	40.6	NA	NA	NA

TABLE 2
Additional Characterization Soil Ananalytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth^:						GLX-TPW-606A	GLX-TPW-607				GLX-TPW-607A				GLX-TPW-608						GLX-TPW-608A	GLX-TPW-609						GLX-TPW-609A
Sample Date:						0-5 ft	0-5 ft	0-2/0.6 ft	2-5/4.6 ft	0-5 ft	0-5 ft	0-5 ft	0-2/1 ft	2-5/4 ft	0-5 ft	0-5 ft	0-2/1 ft	2-5/4 ft	0-5 ft	0-5 ft	0-2/1 ft	2-5/4 ft	0-5 ft					
Sample Date:						02/08/2020	10/20/2019	10/20/2019	10/20/2019	02/08/2020	02/08/2020	11/02/2019	11/02/2019	11/02/2019	02/08/2020	11/02/2019	11/02/2019	11/02/2019	02/08/2020	11/02/2019	11/02/2019	11/02/2019	02/08/2020					
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**	Field Dup																						
Metals, TCLP																												
	Lead	mg/L	5*	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA						
General Chemistry																												
	Ignitability	none	NS	NS	NS	NI		NA		NA		NI		NA		NA		NI		NA		NA						
	Specific conductance	umhos/cm	NS	4,000	8,000	10		NA		NA		12		13		NA		NA		10	U	NA						
	pH	su	NS	>2 <12.5	>2 <12.5	7.6		NA		7.8		6.8		7.2		NA		7.0		6.3		7.5						
	Reactive Cyanide	mg/kg	NS	< 250	< 250	10	U	NA		NA		10	U	10	U	NA		NA		10	U	NA						
	Reactive Sulfide	mg/kg	NS	< 500	< 500	10	U	NA		NA		10	U	10	U	NA		NA		10	U	NA						

Notes:

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

mg/L - milligrams per liter.

su - Standard unit.

umhos/cm - Micro-mhos per centimeter.

E - Value exceeds calibration range.

I - The lower value for the two columns has been reported due to obvious interference.

NA - Sample not analyzed for the listed analyte.

N/A - Not available/applicable.

ND - Not detected.

NI - Not ignitable.

NS - No MassDEP standards exist for this analyte.

P - The RPD (relative percent difference) between the results for the two columns exceeds the method-specified criteria.

U - Analyte was not detected at specified quantitation limit.

Values in **bold** indicate the analyte was detected.

Values shown in bold and shaded type are equal to RCS-1 or exceed one or more of the listed MassDEP standards/criteria.

VOCs - Volatile Organic Compounds.

SVOCs - Semivolatile Organic Compounds.

PCBs - Polychlorinated Biphenyls.

TPH - Total Petroleum Hydrocarbons.

TCLP - Toxicity Characteristic Leaching Procedure.

RC - Reportable concentration.

* - EPA SW-846 Chapter 7, Table 7-1, Maximum Concentration of Contaminants for Toxicity Characteristic.

** - Reuse and Disposal of Contaminated Soil at Massachusetts Landfills, MassDEP Policy # COMM-97-001, August 1997.

^ - Sample depth for other/VOCs analysis; otherwise for all the analyses.

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth: Sample Date:						GLX-TPW-610								GLX-TPW-610A		GLX-TPW-611						GLX-TPW-611A		GLX-TPW-612						GLX-TPW-612A		GLX-TPW-613					
						0-8 ft		0-2/1 ft		2-5/3 ft		5-8/7 ft		0-5 ft		0-5 ft		0-2/1.5 ft		2-5/4 ft		0-5 ft		0-5 ft		0-2/1.5 ft		2-5/4 ft		0-5 ft		0-5 ft		0-2/1.5 ft		2-5/4 ft	
						11/02/2019		11/02/2019		11/02/2019		11/02/2019		02/08/2020		10/20/2019		10/20/2019		10/20/2019		02/08/2020		10/20/2019		10/20/2019		10/20/2019		02/08/2020		10/20/2019		10/20/2019		10/20/2019	
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**																																
VOCs																																					
	Methylene chloride	mg/kg	0.1	NS	NS	NA		0.0038	U	0.0024	U	0.0030	U	NA		NA		0.0049	U	0.0037	U	NA		NA		0.0042	U	0.0038	U	NA		NA		0.0034	U	0.0049	U
	1,1-Dichloroethane	mg/kg	0.4	NS	NS	NA		0.00076	U	0.00048	U	0.00061	U	NA		NA		0.00098	U	0.00074	U	NA		NA		0.00084	U	0.00076	U	NA		NA		0.00068	U	0.00098	U
	Chloroform	mg/kg	0.2	NS	NS	NA		0.0011	U	0.00071	U	0.00091	U	NA		NA		0.0015	U	0.0011	U	NA		NA		0.0013	U	0.0011	U	NA		NA		0.0010	U	0.0015	U
	Carbon tetrachloride	mg/kg	5	NS	NS	NA		0.00076	U	0.00048	U	0.00061	U	NA		NA		0.00098	U	0.00074	U	NA		NA		0.00084	U	0.00076	U	NA		NA		0.00068	U	0.00098	U
	1,2-Dichloropropane	mg/kg	0.1	NS	NS	NA		0.00076	U	0.00048	U	0.00061	U	NA		NA		0.00098	U	0.00074	U	NA		NA		0.00084	U	0.00076	U	NA		NA		0.00068	U	0.00098	U
	Dibromochloromethane	mg/kg	0.005	NS	NS	NA		0.00076	U	0.00048	U	0.00061	U	NA		NA		0.00098	U	0.00074	U	NA		NA		0.00084	U	0.00076	U	NA		NA		0.00068	U	0.00098	U
	1,1,2-Trichloroethane	mg/kg	0.1	NS	NS	NA		0.00076	U	0.00048	U	0.00061	U	NA		NA		0.00098	U	0.00074	U	NA		NA		0.00084	U	0.00076	U	NA		NA		0.00068	U	0.00098	U
	Tetrachloroethene	mg/kg	1	NS	NS	NA		0.00038	U	0.00024	U	0.00030	U	NA		NA		0.00049	U	0.00037	U	NA		NA		0.00042	U	0.00038	U	NA		NA		0.00034	U	0.00049	U
	Chlorobenzene	mg/kg	1	NS	NS	NA		0.00038	U	0.00024	U	0.00030	U	NA		NA		0.00049	U	0.00037	U	NA		NA		0.00042	U	0.00038	U	NA		NA		0.00034	U	0.00049	U
	Trichlorofluoromethane	mg/kg	1,000	NS	NS	NA		0.003	U	0.0019	U	0.0024	U	NA		NA		0.0039	U	0.0030	U	NA		NA		0.0034	U	0.0030	U	NA		NA		0.0027	U	0.0039	U
	1,2-Dichloroethane	mg/kg	0.1	NS	NS	NA		0.00076	U	0.00048	U	0.00061	U	NA		NA		0.00098	U	0.00074	U	NA		NA		0.00084	U	0.00076	U	NA		NA		0.00068	U	0.00098	U
	1,1,1-Trichloroethane	mg/kg	30	NS	NS	NA		0.00038	U	0.00024	U	0.00030	U	NA		NA		0.00049	U	0.00037	U	NA		NA		0.00042	U	0.00038	U	NA		NA		0.00034	U	0.00049	U
	Bromodichloromethane	mg/kg	0.1	NS	NS	NA		0.00038	U	0.00024	U	0.00030	U	NA		NA		0.00049	U	0.00037	U	NA		NA		0.00042	U	0.00038	U	NA		NA		0.00034	U	0.00049	U
	trans-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.00076	U	0.00048	U	0.00061	U	NA		NA		0.00098	U	0.00074	U	NA		NA		0.00084	U	0.00076	U	NA		NA		0.00068	U	0.00098	U
	cis-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.00038	U	0.00024	U	0.00030	U	NA		NA		0.00049	U	0.00037	U	NA		NA		0.00042	U	0.00038	U	NA		NA		0.00034	U	0.00049	U
	1,3-Dichloropropene, Total	mg/kg	0.01	NS	NS	NA		0.00038	U	0.00024	U	0.00030	U	NA		NA		0.00049	U	0.00037	U	NA		NA		0.00042	U	0.00038	U	NA		NA		0.00034	U	0.00049	U
	1,1-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.00038	U	0.00024	U	0.00030	U	NA		NA		0.00049	U	0.00037	U	NA		NA		0.00042	U	0.00038	U	NA		NA		0.00034	U	0.00049	U
	Bromoform	mg/kg	0.1	NS	NS	NA		0.003	U	0.0019	U	0.0024	U	NA		NA		0.0039	U	0.0030	U	NA		NA		0.0034	U	0.0030	U	NA		NA		0.0027	U	0.0039	U
	1,1,2,2-Tetrachloroethane	mg/kg	0.005	NS	NS	NA		0.00038	U	0.00024	U	0.00030	U	NA		NA		0.00049	U	0.00037	U	NA		NA		0.00042	U	0.00038	U	NA		NA		0.00034	U	0.00049	U
	Benzene	mg/kg	2	NS	NS	NA		0.00038	U	0.00024	U	0.00030	U	NA		NA		0.00049	U	0.00037	U	NA		NA		0.00042	U	0.00038	U	NA		NA		0.00034	U	0.00049	U
	Toluene	mg/kg	30	NS	NS	NA		0.00076	U	0.00048	U	0.00061	U	NA		NA		0.00098	U	0.00074	U	NA		NA		0.00084	U	0.00076	U	NA		NA		0.00068	U	0.00098	U
	Ethylbenzene	mg/kg	40	NS	NS	NA		0.00076	U	0.00048	U	0.00061	U	NA		NA		0.00098	U	0.00074	U	NA		NA		0.00084	U	0.00076	U	NA		NA		0.00068	U	0.00098	U
	Chloromethane	mg/kg	100	NS	NS	NA		0.003	U	0.0019	U	0.0024	U	NA		NA		0.0039	U	0.0030	U	NA		NA		0.0034	U	0.0030	U	NA		NA		0.0027	U	0.0039	U
	Bromomethane	mg/kg	0.5	NS	NS	NA		0.0015	U	0.00095	U	0.0012	U	NA		NA		0.0020	U	0.0015	U	NA		NA		0.0017	U	0.0015	U	NA		NA		0.0014	U	0.0020	U
	Vinyl chloride	mg/kg	0.7	NS	NS	NA		0.00076	U	0.00048	U	0.00061	U	NA		NA		0.00098	U	0.00074	U	NA		NA		0.00084	U	0.00076	U	NA		NA		0.00068	U	0.00098	U
	Chloroethane	mg/kg	100	NS	NS	NA		0.0015	U	0.00095	U	0.0012	U	NA		NA		0.0020	U	0.0015	U	NA		NA		0.0017	U	0.0015	U	NA		NA		0.0014	U	0.0020	U
	1,1-Dichloroethene	mg/kg	3	NS	NS	NA		0.00076	U	0.00048	U																										

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth: Sample Date:						GLX-TPW-610				GLX-TPW-610A	GLX-TPW-611				GLX-TPW-611A	GLX-TPW-612				GLX-TPW-612A	GLX-TPW-613																
						0-8 ft	0-2/1 ft		2-5/3 ft	5-8/7 ft	0-5 ft	0-5 ft		0-2/1.5 ft	2-5/4 ft	0-5 ft	0-5 ft		0-2/1.5 ft	2-5/4 ft	0-5 ft	0-5 ft		0-2/1.5 ft	2-5/4 ft												
						11/02/2019	11/02/2019		11/02/2019	11/02/2019	02/08/2020	10/20/2019		10/20/2019	10/20/2019	02/08/2020	10/20/2019		10/20/2019	10/20/2019	02/08/2020	10/20/2019		10/20/2019	10/20/2019												
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**																																
	Naphthalene	mg/kg	4	NS	NS	NA		0.003	U	0.0019	U	0.0024	U	NA		NA		0.0039	U	0.0030	U	NA		NA		0.0034	U	0.0030	U	NA		NA		0.0027	U	0.0039	U
	n-Propylbenzene	mg/kg	100	NS	NS	NA		0.00076	U	0.00048	U	0.00061	U	NA		NA		0.00098	U	0.00074	U	NA		NA		0.00084	U	0.00076	U	NA		NA		0.00068	U	0.00098	U
	1,2,3-Trichlorobenzene	mg/kg	NS	NS	NS	NA		0.0015	U	0.00095	U	0.0012	U	NA		NA		0.0020	U	0.0015	U	NA		NA		0.0017	U	0.0015	U	NA		NA		0.0014	U	0.0020	U
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	NA		0.0015	U	0.00095	U	0.0012	U	NA		NA		0.0020	U	0.0015	U	NA		NA		0.0017	U	0.0015	U	NA		NA		0.0014	U	0.0020	U
	1,3,5-Trimethylbenzene	mg/kg	10	NS	NS	NA		0.0015	U	0.00095	U	0.0012	U	NA		NA		0.0020	U	0.0015	U	NA		NA		0.0017	U	0.0015	U	NA		NA		0.0014	U	0.0020	U
	1,2,4-Trimethylbenzene	mg/kg	1,000	NS	NS	NA		0.0015	U	0.00095	U	0.0012	U	NA		NA		0.0020	U	0.0015	U	NA		NA		0.0017	U	0.0015	U	NA		NA		0.0014	U	0.0020	U
	Ethyl ether	mg/kg	100	NS	NS	NA		0.0015	U	0.00095	U	0.0012	U	NA		NA		0.0020	U	0.0015	U	NA		NA		0.0017	U	0.0015	U	NA		NA		0.0014	U	0.0020	U
	Isopropyl Ether	mg/kg	100	NS	NS	NA		0.0015	U	0.00095	U	0.0012	U	NA		NA		0.0020	U	0.0015	U	NA		NA		0.0017	U	0.0015	U	NA		NA		0.0014	U	0.0020	U
	Ethyl-Tert-Butyl-Ether	mg/kg	NS	NS	NS	NA		0.0015	U	0.00095	U	0.0012	U	NA		NA		0.0020	U	0.0015	U	NA		NA		0.0017	U	0.0015	U	NA		NA		0.0014	U	0.0020	U
	Tertiary-Amyl Methyl Ether	mg/kg	NS	NS	NS	NA		0.0015	U	0.00095	U	0.0012	U	NA		NA		0.0020	U	0.0015	U	NA		NA		0.0017	U	0.0015	U	NA		NA		0.0014	U	0.0020	U
	1,4-Dioxane	mg/kg	0.2	NS	NS	NA		0.061	U	0.038	U	0.049	U	NA		NA		0.078	U	0.06	U	NA		NA		0.067	U	0.06	U	NA		NA		0.054	U	0.078	U
	Total VOCs	mg/kg	N/A	4	10	NA		0.198		0.018		0.035		NA		NA		0.095		0.028		NA		NA		0.080		0.059		NA		NA		0.028		0.032	
SVOCs																																					
	Acenaphthene	mg/kg	4	NS	NS	NA		NA		NA		NA		0.14	U	NA		NA		NA		NA		NA		0.14	U	NA		NA		NA		NA		NA	
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	NA		NA		NA		NA		0.17	U	NA		NA		NA		NA		NA		0.18	U	NA		NA		NA		NA		NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	NA		NA		NA		NA		0.073	U	NA		NA		NA		NA		NA		0.074	U	NA		NA		NA		NA		NA	
	Bis(2-chloroethyl)ether	mg/kg	0.7	NS	NS	NA		NA		NA		NA		0.073	U	NA		NA		NA		NA		NA		0.074	U	NA		NA		NA		NA		NA	
	2-Chloronaphthalene	mg/kg	1,000	NS	NS	NA		NA		NA		NA		0.17	U	NA		NA		NA		NA		NA		0.18	U	NA		NA		NA		NA		NA	
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	NA		NA		NA		NA		0.17	U	NA		NA		NA		NA		NA		0.18	U	NA		NA		NA		NA		NA	
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	NA		NA		NA		NA		0.17	U	NA		NA		NA		NA		NA		0.18	U	NA		NA		NA		NA		NA	
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	NA		NA		NA		NA		0.073	U	NA		NA		NA		NA		NA		0.074	U	NA		NA		NA		NA		NA	
	3,3'-Dichlorobenzidine	mg/kg	3	NS	NS	NA		NA		NA		NA		0.17	U	NA		NA		NA		NA		NA		0.18	U	NA		NA		NA		NA		NA	
	2,4-Dinitrotoluene	mg/kg	0.7	NS	NS	NA		NA		NA		NA		0.073	U	NA		NA		NA		NA		NA		0.074	U	NA		NA		NA		NA		NA	
	2,6-Dinitrotoluene	mg/kg	100	NS	NS	NA		NA		NA		NA		0.17	U	NA		NA		NA		NA		NA		0.18	U	NA		NA		NA		NA		NA	
	Azobenzene	mg/kg	NS	NS	NS	NA		NA		NA		NA		0.17	U	NA		NA		NA		NA		NA		0.18	U	NA		NA		NA		NA		NA	
	Fluoranthene	mg/kg	1,000	NS	NS	NA		NA		NA		NA		0.1	U	NA		NA		NA		0.14		NA		NA		NA		NA		NA		NA		NA	
	4-Bromophenyl phenyl ether	mg/kg	100	NS	NS	NA		NA		NA		NA		0.17	U	NA		NA		NA		0.18	U	NA		NA		NA		NA		NA		NA		NA	
	Bis(2-chloroisopropyl)ether	mg/kg	0.7	NS	NS	NA		NA		NA		NA		0.073	U	NA		NA		NA		0.074	U	NA		NA		NA		NA		NA		NA		NA	
	Bis(2-chloroethoxy)methane	mg/kg	500	NS	NS	NA		NA		NA		NA		0.19	U	NA		NA		NA		0.19	U	NA		NA		NA		NA		NA		NA		NA	
	Hexachlorobutadiene	mg/kg	30	NS	NS	NA		NA		NA		NA		0.17	U	NA		NA		NA		0.18	U	NA		NA		NA		NA		NA		NA		NA	
	Hexachloroethane	mg/kg	0.7	NS	NS	NA		NA		NA		NA		0.070																							

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth^: Sample Date:						GLX-TPW-610				GLX-TPW-610A	GLX-TPW-611			GLX-TPW-611A	GLX-TPW-612			GLX-TPW-612A	GLX-TPW-613		
						0-8 ft	0-2/1 ft	2-5/3 ft	5-8/7 ft	0-5 ft	0-5 ft	0-2/1.5 ft	2-5/4 ft	0-5 ft	0-5 ft	0-2/1.5 ft	2-5/4 ft	0-5 ft	0-5 ft	0-2/1.5 ft	2-5/4 ft
						11/02/2019	11/02/2019	11/02/2019	11/02/2019	02/08/2020	10/20/2019	10/20/2019	10/20/2019	02/08/2020	10/20/2019	10/20/2019	10/20/2019	02/08/2020	10/20/2019	10/20/2019	10/20/2019
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**																
	2,4-Dinitrophenol	mg/kg	3	NS	NS	NA	NA	NA	NA	0.84 U	NA	NA	NA	0.85 U	NA	NA	NA	0.85 U	NA	NA	NA
	Pentachlorophenol	mg/kg	3	NS	NS	NA	NA	NA	NA	0.35 U	NA	NA	NA	0.35 U	NA	NA	NA	0.36 U	NA	NA	NA
	Phenol	mg/kg	1	NS	NS	NA	NA	NA	NA	0.17 U	NA	NA	NA	0.18 U	NA	NA	NA	0.18 U	NA	NA	NA
	2-Methylphenol	mg/kg	500	NS	NS	NA	NA	NA	NA	0.17 U	NA	NA	NA	0.18 U	NA	NA	NA	0.18 U	NA	NA	NA
	3-Methylphenol/4-Methylphenol	mg/kg	NS	NS	NS	NA	NA	NA	NA	0.25 U	NA	NA	NA	0.26 U	NA	NA	NA	0.26 U	NA	NA	NA
	2,4,5-Trichlorophenol	mg/kg	4	NS	NS	NA	NA	NA	NA	0.17 U	NA	NA	NA	0.18 U	NA	NA	NA	0.18 U	NA	NA	NA
	Pyridine	mg/kg	500	NS	NS	NA	NA	NA	NA	0.19 U	NA	NA	NA	0.19 U	NA	NA	NA	0.19 U	NA	NA	NA
	Total SVOCs	mg/kg	N/A	100	100	NA	NA	NA	NA	ND	NA	NA	NA	0.250	NA	NA	NA	ND	NA	NA	NA
Pesticides																					
	Delta-BHC	mg/kg	10	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Lindane	mg/kg	0.003	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alpha-BHC	mg/kg	50	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Beta-BHC	mg/kg	10	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Heptachlor	mg/kg	0.3	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aldrin	mg/kg	0.08	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Heptachlor epoxide	mg/kg	0.1	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Endrin	mg/kg	10	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Endrin ketone	mg/kg	10	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dieldrin	mg/kg	0.08	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4,4'-DDE	mg/kg	6	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4,4'-DDD	mg/kg	8	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4,4'-DDT	mg/kg	6	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Endosulfan I	mg/kg	0.5	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Endosulfan II	mg/kg	0.5	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Endosulfan sulfate	mg/kg	0.5	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Methoxychlor	mg/kg	200	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Chlordane	mg/kg	0.7	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Hexachlorobenzene	mg/kg	0.7	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Herbicides																					
	MCPP	mg/kg	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MCPA	mg/kg	100	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dalapon	mg/kg	1,000	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dicamba	mg/kg	500	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dichloroprop	mg/kg	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4-D	mg/kg	100	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4-DB	mg/kg	100	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4,5-T	mg/kg	100	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2,4,5-TP (Silvex)	mg/kg	100	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB Aroclors																					
	Aroclor-1016	mg/kg	1	NS	NS	0.0350	NA	NA	NA	NA	NA	0.036	NA	NA	0.035	NA	NA	NA	NA	0.037	NA
	Aroclor-1221	mg/kg	1	NS	NS	0.0350	NA	NA	NA	NA	NA	0.036	NA	NA	0.035	NA	NA	NA	NA	0.037	NA
	Aroclor-1232	mg/kg	1	NS	NS	0.0350	NA	NA	NA	NA	NA	0.036	NA	NA	0.035	NA	NA	NA	NA	0.037	NA
	Aroclor-1242	mg/kg	1	NS	NS	0.0350	NA	NA	NA	NA	NA	0.036	NA	NA	0.035	NA	NA	NA	NA	0.037	NA
	Aroclor-1248	mg/kg	1	NS	NS	0.0350	NA	NA	NA	NA	NA	0.036	NA	NA	0.035	NA	NA	NA	NA	0.037	NA
	Aroclor-1254	mg/kg	1	NS	NS	0.0350	NA	NA	NA	NA	NA	0.036	NA	NA	0.035	NA	NA	NA	NA	0.037	NA
	Aroclor-1260	mg/kg	1	NS	NS	0.0350	NA	NA	NA	NA	NA	0.036	NA	NA	0.035	NA	NA	NA	NA	0.037	NA
	Aroclor-1262	mg/kg	1	NS	NS	0.0350	NA	NA	NA	NA	NA	0.036	NA	NA	0.035	NA	NA	NA	NA	0.037	NA
	Aroclor-1268	mg/kg	1	NS	NS	0.0350	NA	NA	NA	NA	NA	0.036	NA	NA	0.035	NA	NA	NA	NA	0.037	NA
	PCBs, Total	mg/kg	1	2	2	0.0350	NA	NA	NA	NA	NA	0.036	NA	NA	0.035	NA	NA	NA	NA	0.037	NA
TPH																					
	Total Petroleum Hydrocarbons C10-C36	mg/kg	1,000	2,500	5,000	NA	NA	NA	NA	34.1	NA	NA	NA	35.1	NA	NA	NA	35.3	NA	NA	NA
Metals, total																					
	Antimony	mg/kg	20	NS	NS	2.12	NA	NA	NA	NA	NA	2.17	NA	NA	2.07	NA	NA	NA	NA	2.15	NA
	Arsenic	mg/kg	20	40	40	3.85	NA	NA	NA	NA	NA	3.56	NA	NA	2.90	NA	NA	NA	NA	2.18	NA
	Barium	mg/kg	1,000	NS	NS	20.4	NA	NA	NA	NA	NA	29.6	NA	NA	14.8	NA	NA	NA	NA	25.6	NA
	Beryllium	mg/kg	90	NS	NS	0.212	NA	NA	NA	NA	NA	0.217	NA	NA	0.207	NA	NA	NA	NA	0.215	NA
	Cadmium	mg/kg	70	30	80	0.425	NA	NA	NA	NA	NA	0.433	NA	NA	0.414	NA	NA	NA	NA	0.431	NA
	Chromium	mg/kg	100	1,000	1,000	12.7	NA	NA	NA	NA	NA	11.3	NA	NA	16.6	NA	NA	NA	NA	13.8	NA
	Lead	mg/kg	200	1,000	2,000	17.9	NA	NA	NA	NA	NA	58.6	NA	NA	8.80	NA	NA	NA	NA	9.52	NA
	Mercury	mg/kg	20	10	10	NA	NA	NA	NA	0.078	NA	NA	NA	0.078	NA	NA	NA	0.079	NA	NA	NA
	Nickel	mg/kg	600	NS	NS	7.43	NA	NA	NA	NA	NA	9.82	NA	NA	9.84	NA	NA	NA	NA	10.0	NA
	Selenium	mg/kg	400	NS	NS	2.12	NA	NA	NA	NA	NA	2.17	NA	NA	2.07	NA	NA	NA	NA	2.15	NA
	Silver	mg/kg	100	NS	NS	0.425	NA	NA	NA	NA	NA	0.433	NA	NA	0.414	NA	NA	NA	NA	0.431	NA
	Thallium	mg/kg	8	NS	NS	2.12	NA	NA	NA	NA	NA	2.17	NA	NA	2.07	NA	NA	NA	NA	2.15	NA

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth: Sample Date:						GLX-TPW-610				GLX-TPW-610A	GLX-TPW-611			GLX-TPW-611A	GLX-TPW-612			GLX-TPW-612A	GLX-TPW-613		
						0-8 ft	0-2/1 ft	2-5/3 ft	5-8/7 ft	0-5 ft	0-5 ft	0-2/1.5 ft	2-5/4 ft	0-5 ft	0-5 ft	0-2/1.5 ft	2-5/4 ft	0-5 ft	0-5 ft	0-2/1.5 ft	2-5/4 ft
						11/02/2019	11/02/2019	11/02/2019	11/02/2019	02/08/2020	10/20/2019	10/20/2019	10/20/2019	02/08/2020	10/20/2019	10/20/2019	10/20/2019	02/08/2020	10/20/2019	10/20/2019	10/20/2019
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**																
	Vanadium	mg/kg	400	NS	NS	20.5	NA	NA	NA	NA	NA	23.6	NA	NA	21.1	NA	NA	NA	NA	20.5	NA
	Zinc	mg/kg	1,000	NS	NS	35.6	NA	NA	NA	NA	NA	51.7	NA	NA	36.1	NA	NA	NA	NA	45.8	NA

TABLE 2
Additional Characterization Soil Ananalytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth: Sample Date:						GLX-TPW-610								GLX-TPW-610A		GLX-TPW-611						GLX-TPW-611A		GLX-TPW-612						GLX-TPW-612A		GLX-TPW-613					
						0-8 ft		0-2/1 ft		2-5/3 ft		5-8/7 ft		0-5 ft		0-5 ft		0-2/1.5 ft		2-5/4 ft		0-5 ft		0-5 ft		0-2/1.5 ft		2-5/4 ft		0-5 ft		0-5 ft		0-2/1.5 ft		2-5/4 ft	
						11/02/2019		11/02/2019		11/02/2019		11/02/2019		02/08/2020		10/20/2019		10/20/2019		10/20/2019		02/08/2020		10/20/2019		10/20/2019		10/20/2019		02/08/2020		10/20/2019		10/20/2019		10/20/2019	
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**																																
Metals, TCLP																																					
	Lead	mg/L	5*	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA					
General Chemistry																																					
	Ignitability	none	NS	NS	NS	NA		NA		NA		NI		NA		NA		NA		NI		NA		NA		NA		NI		NA		NA		NA			
	Specific conductance	umhos/cm	NS	4,000	8,000	NA		NA		NA		10	U	NA		NA		NA		10	U	NA		NA		10	U	NA		NA		NA		NA			
	pH	su	NS	>2 <12.5	>2 <12.5	NA		7.2		7.5		7.3		NA		7.0		6.5		6.5		NA		4.0		6.6		7.3		NA		7.1		6.1			
	Reactive Cyanide	mg/kg	NS	< 250	< 250	NA		NA		NA		10	U	NA		NA		NA		10	U	NA		NA		NA		10	U	NA		NA		NA			
	Reactive Sulfide	mg/kg	NS	< 500	< 500	NA		NA		NA		10	U	NA		NA		NA		10	U	NA		NA		NA		10	U	NA		NA		NA			

Notes:

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

mg/L - milligrams per liter.

su - Standard unit.

umhos/cm - Micro-mhos per centimeter.

E - Value exceeds calibration range.

I - The lower value for the two columns has been reported due to obvious interference.

NA - Sample not analyzed for the listed analyte.

N/A - Not available/applicable.

ND - Not detected.

NI - Not ignitable.

NS - No MassDEP standards exist for this analyte.

P - The RPD (relative percent difference) between the results for the two columns exceeds the method-specified criteria.

U - Analyte was not detected at specified quantitation limit.

Values in **bold** indicate the analyte was detected.

Values shown in bold and shaded type are equal to RCS-1 or exceed one or more of the listed MassDEP standards/criteria.

VOCs - Volatile Organic Compounds.

SVOCs - Semivolatile Organic Compounds.

PCBs - Polychlorinated Biphenyls.

TPH - Total Petroleum Hydrocarbons.

TCLP - Toxicity Characteristic Leaching Procedure.

RC - Reportable concentration.

* - EPA SW-846 Chapter 7, Table 7-1, Maximum Concentration of Contaminants for Toxicity Characteristic.

** - Reuse and Disposal of Contaminated Soil at Massachusetts Landfills, MassDEP Policy # COMM-97-001, August 1997.

^ - Sample depth for other/VOCs analysis; otherwise for all the analyses.

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth: Sample Date:						GLX-TPW-613A		GLX-TPW-614					GLX-TPW-614A		GLX-TPW-615						WASH-C15DS		WASH-NABUTDS														
						0-5 ft	0-2/1 ft		2-5/4 ft		4 ft		0-5 ft	0-15 ft	1 ft	2-5/4 ft		5-8/7 ft	8-12/10 ft	12-15/13 ft	N/A	5 ft	N/A	3 ft													
						02/08/2020	10/20/2019	10/20/2019	10/20/2019	10/20/2019	02/08/2020	10/20/2019	10/20/2019	10/20/2019	10/20/2019	10/20/2019	10/20/2019	10/20/2019	10/20/2019	03/19/2020	03/19/2020	03/20/2020	03/20/2020														
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**							Field Dup																									
VOCs																																					
	Methylene chloride	mg/kg	0.1	NS	NS	NA		NA		0.0043	U	0.0035	U	0.0039	U	NA		NA		0.0041	U	0.0033	U	0.0036	U	0.0037	U	0.0034	U	NA		0.0038	U	NA		0.0041	U
	1,1-Dichloroethane	mg/kg	0.4	NS	NS	NA		NA		0.00085	U	0.00070	U	0.00078	U	NA		NA		0.00082	U	0.00066	U	0.00071	U	0.00075	U	0.00067	U	NA		0.00077	U	NA		0.00082	U
	Chloroform	mg/kg	0.2	NS	NS	NA		NA		0.0013	U	0.0010	U	0.0012	U	NA		NA		0.0012	U	0.00099	U	0.0011	U	0.0011	U	0.0010	U	NA		0.0012	U	NA		0.0012	U
	Carbon tetrachloride	mg/kg	5	NS	NS	NA		NA		0.00085	U	0.00070	U	0.00078	U	NA		NA		0.00082	U	0.00066	U	0.00071	U	0.00075	U	0.00067	U	NA		0.00077	U	NA		0.00082	U
	1,2-Dichloropropane	mg/kg	0.1	NS	NS	NA		NA		0.00085	U	0.00070	U	0.00078	U	NA		NA		0.00082	U	0.00066	U	0.00071	U	0.00075	U	0.00067	U	NA		0.00077	U	NA		0.00082	U
	Dibromochloromethane	mg/kg	0.005	NS	NS	NA		NA		0.00085	U	0.00070	U	0.00078	U	NA		NA		0.00082	U	0.00066	U	0.00071	U	0.00075	U	0.00067	U	NA		0.00077	U	NA		0.00082	U
	1,1,2-Trichloroethane	mg/kg	0.1	NS	NS	NA		NA		0.00085	U	0.00070	U	0.00078	U	NA		NA		0.00082	U	0.00066	U	0.00071	U	0.00075	U	0.00067	U	NA		0.00077	U	NA		0.00082	U
	Tetrachloroethene	mg/kg	1	NS	NS	NA		NA		0.00043	U	0.00035	U	0.00039	U	NA		NA		0.00041	U	0.00033	U	0.00036	U	0.00037	U	0.00034	U	NA		0.0033		NA		0.0062	
	Chlorobenzene	mg/kg	1	NS	NS	NA		NA		0.00043	U	0.00035	U	0.00039	U	NA		NA		0.00041	U	0.00033	U	0.00036	U	0.00037	U	0.00034	U	NA		0.00038	U	NA		0.00041	U
	Trichlorofluoromethane	mg/kg	1,000	NS	NS	NA		NA		0.0034	U	0.0028	U	0.0031	U	NA		NA		0.0033	U	0.0026	U	0.0028	U	0.0030	U	0.0027	U	NA		0.0031	U	NA		0.0033	U
	1,2-Dichloroethane	mg/kg	0.1	NS	NS	NA		NA		0.00085	U	0.00070	U	0.00078	U	NA		NA		0.00082	U	0.00066	U	0.00071	U	0.00075	U	0.00067	U	NA		0.00077	U	NA		0.00082	U
	1,1,1-Trichloroethane	mg/kg	30	NS	NS	NA		NA		0.00043	U	0.00035	U	0.00039	U	NA		NA		0.00041	U	0.00033	U	0.00036	U	0.00037	U	0.00034	U	NA		0.00038	U	NA		0.00041	U
	Bromodichloromethane	mg/kg	0.1	NS	NS	NA		NA		0.00043	U	0.00035	U	0.00039	U	NA		NA		0.00041	U	0.00033	U	0.00036	U	0.00037	U	0.00034	U	NA		0.00038	U	NA		0.00041	U
	trans-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		NA		0.00085	U	0.00070	U	0.00078	U	NA		NA		0.00082	U	0.00066	U	0.00071	U	0.00075	U	0.00067	U	NA		0.00077	U	NA		0.00082	U
	cis-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		NA		0.00043	U	0.00035	U	0.00039	U	NA		NA		0.00041	U	0.00033	U	0.00036	U	0.00037	U	0.00034	U	NA		0.00038	U	NA		0.00041	U
	1,3-Dichloropropene, Total	mg/kg	0.01	NS	NS	NA		NA		0.00043	U	0.00035	U	0.00039	U	NA		NA		0.00041	U	0.00033	U	0.00036	U	0.00037	U	0.00034	U	NA		0.00038	U	NA		0.00041	U
	1,1-Dichloropropene	mg/kg	0.01	NS	NS	NA		NA		0.00043	U	0.00035	U	0.00039	U	NA		NA		0.00041	U	0.00033	U	0.00036	U	0.00037	U	0.00034	U	NA		0.00038	U	NA		0.00041	U
	Bromoform	mg/kg	0.1	NS	NS	NA		NA		0.0034	U	0.0028	U	0.0031	U	NA		NA		0.0033	U	0.0026	U	0.0028	U	0.0030	U	0.0027	U	NA		0.0031	U	NA		0.0033	U
	1,1,2,2-Tetrachloroethane	mg/kg	0.005	NS	NS	NA		NA		0.00043	U	0.00035	U	0.00039	U	NA		NA		0.00041	U	0.00033	U	0.00036	U	0.00037	U	0.00034	U	NA		0.00038	U	NA		0.00041	U
	Benzene	mg/kg	2	NS	NS	NA		NA		0.00043	U	0.00035	U	0.00039	U	NA		NA		0.00041	U	0.00033	U	0.00036	U	0.00037	U	0.00034	U	NA		0.00038	U	NA		0.00041	U
	Toluene	mg/kg	30	NS	NS	NA		NA		0.00085	U	0.00070	U	0.00078	U	NA		NA		0.00082	U	0.00066	U	0.00071	U	0.00075	U	0.00067	U	NA		0.00077	U	NA		0.00082	U
	Ethylbenzene	mg/kg	40	NS	NS	NA		NA		0.00085	U	0.00070	U	0.00078	U	NA		NA		0.00082	U	0.00066	U	0.00071	U	0.00075	U	0.00067	U	NA		0.00077	U	NA		0.00082	U
	Chloromethane	mg/kg	100	NS	NS	NA		NA		0.0034	U	0.0028	U	0.0031	U	NA		NA		0.0033	U	0.0026	U	0.0028	U	0.0030	U	0.0027	U	NA		0.0031	U	NA		0.0033	U
	Bromomethane	mg/kg	0.5	NS	NS	NA		NA		0.0017	U	0.0014	U	0.0016	U	NA		NA		0.0016	U	0.0013	U	0.0014	U	0.0015	U	0.0013	U	NA		0.0015	U	NA		0.0016	U
	Vinyl chloride	mg/kg	0.7	NS	NS	NA		NA		0.00085	U	0.00070	U	0.00078	U	NA		NA		0.00082	U	0.00066	U	0.00071	U	0.00075	U	0.00067	U	NA		0.00077	U	NA		0.00082	U
	Chloroethane	mg/kg	100	NS	NS																																

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth: Sample Date:						GLX-TPW-613A		GLX-TPW-614					GLX-TPW-614A		GLX-TPW-615								WASH-C15DS		WASH-NABUTDS										
						0-5 ft	0-5 ft		0-2/1 ft		2-5/4 ft		4 ft		0-5 ft	0-15 ft		1 ft		2-5/4 ft		5-8/7 ft		8-12/10 ft		12-15/13 ft		N/A	5 ft		N/A	3 ft			
						02/08/2020	10/20/2019	10/20/2019	10/20/2019	10/20/2019	10/20/2019	02/08/2020	10/20/2019	10/20/2019	10/20/2019	10/20/2019	10/20/2019	10/20/2019	10/20/2019	10/20/2019	10/20/2019	10/20/2019	10/20/2019	10/20/2019	10/20/2019	10/20/2019	03/19/2020	03/19/2020	03/20/2020	03/20/2020					
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**																														
	Naphthalene	mg/kg	4	NS	NS	NA		NA	0.0034	U	0.0028	U	0.0031	U	NA		NA	0.0033	U	0.0026	U	0.0028	U	0.0030	U	0.0027	U	NA		0.0031	U	NA		0.0033	U
	n-Propylbenzene	mg/kg	100	NS	NS	NA		NA	0.00085	U	0.00070	U	0.00078	U	NA		NA	0.00082	U	0.00066	U	0.00071	U	0.00075	U	0.00067	U	NA		0.00077	U	NA		0.00082	U
	1,2,3-Trichlorobenzene	mg/kg	NS	NS	NS	NA		NA	0.0017	U	0.0014	U	0.0016	U	NA		NA	0.0016	U	0.0013	U	0.0014	U	0.0015	U	0.0013	U	NA		0.0015	U	NA		0.0016	U
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	NA		NA	0.0017	U	0.0014	U	0.0016	U	NA		NA	0.0016	U	0.0013	U	0.0014	U	0.0015	U	0.0013	U	NA		0.0015	U	NA		0.0016	U
	1,3,5-Trimethylbenzene	mg/kg	10	NS	NS	NA		NA	0.0017	U	0.0014	U	0.0016	U	NA		NA	0.0016	U	0.0013	U	0.0014	U	0.0015	U	0.0013	U	NA		0.0015	U	NA		0.0016	U
	1,2,4-Trimethylbenzene	mg/kg	1,000	NS	NS	NA		NA	0.0017	U	0.0014	U	0.0016	U	NA		NA	0.0016	U	0.0013	U	0.0014	U	0.0015	U	0.0013	U	NA		0.0015	U	NA		0.0016	U
	Ethyl ether	mg/kg	100	NS	NS	NA		NA	0.0017	U	0.0014	U	0.0016	U	NA		NA	0.0016	U	0.0013	U	0.0014	U	0.0015	U	0.0013	U	NA		0.0015	U	NA		0.0016	U
	Isopropyl Ether	mg/kg	100	NS	NS	NA		NA	0.0017	U	0.0014	U	0.0016	U	NA		NA	0.0016	U	0.0013	U	0.0014	U	0.0015	U	0.0013	U	NA		0.0015	U	NA		0.0016	U
	Ethyl-Tert-Butyl-Ether	mg/kg	NS	NS	NS	NA		NA	0.0017	U	0.0014	U	0.0016	U	NA		NA	0.0016	U	0.0013	U	0.0014	U	0.0015	U	0.0013	U	NA		0.0015	U	NA		0.0016	U
	Tertiary-Amyl Methyl Ether	mg/kg	NS	NS	NS	NA		NA	0.0017	U	0.0014	U	0.0016	U	NA		NA	0.0016	U	0.0013	U	0.0014	U	0.0015	U	0.0013	U	NA		0.0015	U	NA		0.0016	U
	1,4-Dioxane	mg/kg	0.2	NS	NS	NA		NA	0.068	U	0.056	U	0.062	U	NA		NA	0.065	U	0.053	U	0.057	U	0.06	U	0.054	U	NA		0.062	U	NA		0.065	U
	Total VOCs	mg/kg	N/A	4	10	NA		NA	0.066		ND		0.052		NA		NA	ND		ND		0.036		0.062		0.021		NA		0.133		NA		0.0272	
SVOCs																																			
	Acenaphthene	mg/kg	4	NS	NS	0.14	U	NA	NA		NA		NA	0.14	U	NA		NA		NA		NA		NA		NA	0.15	U	NA		0.15	U	NA		
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	0.17	U	NA	NA		NA		NA	0.18	U	NA		NA		NA		NA		NA		NA	0.18	U	NA		0.19	U	NA		
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.073	U	NA	NA		NA		NA	0.075	U	NA		NA		NA		NA		NA		NA	0.077	U	NA		0.081	U	NA		
	Bis(2-chloroethyl)ether	mg/kg	0.7	NS	NS	0.073	U	NA	NA		NA		NA	0.075	U	NA		NA		NA		NA		NA		NA	0.077	U	NA		0.081	U	NA		
	2-Chloronaphthalene	mg/kg	1,000	NS	NS	0.17	U	NA	NA		NA		NA	0.18	U	NA		NA		NA		NA		NA		NA	0.18	U	NA		0.19	U	NA		
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	0.17	U	NA	NA		NA		NA	0.18	U	NA		NA		NA		NA		NA		NA	0.18	U	NA		0.19	U	NA		
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	0.17	U	NA	NA		NA		NA	0.18	U	NA		NA		NA		NA		NA		NA	0.18	U	NA		0.19	U	NA		
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	0.073	U	NA	NA		NA		NA	0.075	U	NA		NA		NA		NA		NA		NA	0.077	U	NA		0.081	U	NA		
	3,3'-Dichlorobenzidine	mg/kg	3	NS	NS	0.17	U	NA	NA		NA		NA	0.18	U	NA		NA		NA		NA		NA		NA	0.18	U	NA		0.19	U	NA		
	2,4-Dinitrotoluene	mg/kg	0.7	NS	NS	0.073	U	NA	NA		NA		NA	0.075	U	NA		NA		NA		NA		NA		NA	0.077	U	NA		0.081	U	NA		
	2,6-Dinitrotoluene	mg/kg	100	NS	NS	0.17	U	NA	NA		NA		NA	0.18	U	NA		NA		NA		NA		NA		NA	0.18	U	NA		0.19	U	NA		
	Azobenzene	mg/kg	NS	NS	NS	0.17	U	NA	NA		NA		NA	0.18	U	NA		NA		NA		NA		NA		NA	0.18	U	NA		0.19	U	NA		
	Fluoranthene	mg/kg	1,000	NS	NS	0.14		NA	NA		NA		NA	0.12		NA		NA		NA		NA		NA		NA	0.53		NA		0.7		NA		
	4-Bromophenyl phenyl ether	mg/kg	100	NS	NS	0.17	U	NA	NA		NA		NA	0.18	U	NA		NA		NA		NA		NA		NA	0.18	U	NA		0.19	U	NA		
	Bis(2-chloroisopropyl)ether	mg/kg	0.7	NS	NS	0.073	U	NA	NA		NA		NA	0.075	U	NA		NA		NA		NA		NA		NA	0.077	U	NA		0.081	U	NA		
	Bis(2-chloroethoxy)methane	mg/kg	500	NS	NS	0.19	U	NA	NA		NA		NA	0.19	U	NA		NA		NA		NA		NA		NA	0.2	U	NA		0.21	U	NA		
	Hexachlorobutadiene	mg/kg	30	NS	NS	0.17	U	NA	NA		NA		NA	0.18	U	NA		NA		NA		NA		NA		NA	0.18	U	NA		0.19	U	NA		
	Hexachloroethane	mg/kg	0.7	NS	NS	0.073	U	NA	NA		NA		NA	0.075	U	NA		NA		NA		NA		NA		NA	0.077	U	NA		0.081	U	NA		
	Isophorone	mg/kg	100	NS	NS	0.16	U	NA	NA		NA		NA	0.16</																					

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth: Sample Date:						GLX-TPW-613A		GLX-TPW-614					GLX-TPW-614A		GLX-TPW-615							WASH-C15DS		WASH-NABUTDS							
						0-5 ft	0-5 ft	0-2/1 ft	2-5/4 ft	4 ft	0-5 ft	0-15 ft	1 ft	2-5/4 ft	5-8/7 ft	8-12/10 ft	12-15/13 ft	N/A	5 ft	N/A	3 ft										
						02/08/2020	10/20/2019	10/20/2019	10/20/2019	10/20/2019	02/08/2020	10/20/2019	10/20/2019	10/20/2019	10/20/2019	10/20/2019	10/20/2019	03/19/2020	03/19/2020	03/20/2020	03/20/2020										
Analysis	Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**																										
	2,4-Dinitrophenol	mg/kg	3	NS	NS	0.84	U		NA		NA		NA		NA		NA		NA		0.88	U		NA		0.92	U		NA		
	Pentachlorophenol	mg/kg	3	NS	NS	0.35	U		NA		NA		NA		NA		NA		NA		0.37	U		NA		0.38	U		NA		
	Phenol	mg/kg	1	NS	NS	0.17	U		NA		NA		NA		NA		NA		NA		0.18	U		NA		0.19	U		NA		
	2-Methylphenol	mg/kg	500	NS	NS	0.17	U		NA		NA		NA		NA		NA		NA		0.18	U		NA		0.19	U		NA		
	3-Methylphenol/4-Methylphenol	mg/kg	NS	NS	NS	0.25	U		NA		NA		NA		NA		NA		NA		0.26	U		NA		0.28	U		NA		
	2,4,5-Trichlorophenol	mg/kg	4	NS	NS	0.17	U		NA		NA		NA		NA		NA		NA		0.18	U		NA		0.19	U		NA		
	Pyridine	mg/kg	500	NS	NS	0.19	U		NA		NA		NA		NA		NA		NA		0.2	U		NA		0.21	U		NA		
	Total SVOCs	mg/kg	N/A	100	100	0.370			NA		NA		NA		NA		NA		NA		3.12			NA		4.6			NA		
Pesticides																															
	Delta-BHC	mg/kg	10	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.00175	U		NA		0.00185	U		NA		
	Lindane	mg/kg	0.003	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.000584	U		NA		0.000617	U		NA		
	Alpha-BHC	mg/kg	50	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.000730	U		NA		0.000771	U		NA		
	Beta-BHC	mg/kg	10	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.00175	U		NA		0.00185	U		NA		
	Heptachlor	mg/kg	0.3	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.000876	U		NA		0.000925	U		NA		
	Aldrin	mg/kg	0.08	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.00175	U		NA		0.00185	U		NA		
	Heptachlor epoxide	mg/kg	0.1	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.00328	U		NA		0.00347	U		NA		
	Endrin	mg/kg	10	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.000730	U		NA		0.000771	U		NA		
	Endrin ketone	mg/kg	10	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.00175	U		NA		0.00185	U		NA		
	Dieldrin	mg/kg	0.08	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.00109	U		NA		0.00116	U		NA		
	4,4'-DDE	mg/kg	6	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.00175	U		NA		0.00185	U		NA		
	4,4'-DDD	mg/kg	8	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.00175	U		NA		0.00185	U		NA		
	4,4'-DDT	mg/kg	6	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.00475			NA		0.00347	U		NA		
	Endosulfan I	mg/kg	0.5	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.00175	U		NA		0.00185	U		NA		
	Endosulfan II	mg/kg	0.5	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.00175	U		NA		0.00185	U		NA		
	Endosulfan sulfate	mg/kg	0.5	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.000730	U		NA		0.000771	U		NA		
	Methoxychlor	mg/kg	200	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.00328	U		NA		0.00347	U		NA		
	Chlordane	mg/kg	0.7	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.0146	U		NA		0.0154	U		NA		
	Hexachlorobenzene	mg/kg	0.7	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.00175	U		NA		0.00185	U		NA		
Herbicides																															
	MCPP	mg/kg	NS	NS	NS	NA			NA		NA		NA		NA		NA		NA		3.7	U		NA		3.8	U		NA		
	MCPA	mg/kg	100	NS	NS	NA			NA		NA		NA		NA		NA		NA		3.7	U		NA		3.8	U		NA		
	Dalapon	mg/kg	1,000	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.037	U		NA		0.038	U		NA		
	Dicamba	mg/kg	500	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.037	U		NA		0.038	U		NA		
	Dichloroprop	mg/kg	NS	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.037	U		NA		0.038	U		NA		
	2,4-D	mg/kg	100	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.037	U		NA		0.038	U		NA		
	2,4-DB	mg/kg	100	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.037	U		NA		0.038	U		NA		
	2,4,5-T	mg/kg	100	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.037	U		NA		0.038	U		NA		
	2,4,5-TP (Silvex)	mg/kg	100	NS	NS	NA			NA		NA		NA		NA		NA		NA		0.037	U		NA		0.038	U		NA		
PCB Aroclors																															
	Aroclor-1016	mg/kg	1	NS	NS	NA			0.034	U		NA		NA		0.035	U		NA		NA		NA		NA		0.0354	U		NA	
	Aroclor-1221	mg/kg	1	NS	NS	NA			0.034	U		NA		NA		0.035	U		NA		NA		NA		NA		0.0354	U		NA	
	Aroclor-1232	mg/kg	1	NS	NS	NA			0.034	U		NA		NA		0.035	U		NA		NA		NA		NA		0.0354	U		NA	
	Aroclor-1242	mg/kg	1	NS	NS	NA			0.034	U		NA		NA		0.035	U		NA		NA		NA		NA		0.0354	U		NA	
	Aroclor-1248	mg/kg	1	NS	NS	NA			0.034	U		NA		NA		0.035	U		NA		0.0354	U		NA		0.0378	U		NA		
	Aroclor-1254	mg/kg	1	NS	NS	NA			0.034	U		NA		NA		0.035	U		NA		NA		NA		NA		0.0354	U		NA	
	Aroclor-1260	mg/kg	1	NS	NS	NA			0.034	U		NA		NA		0.035	U		NA		NA		NA		NA		0.0354	U		NA	
	Aroclor-1262	mg/kg	1	NS	NS	NA			0.034	U		NA		NA		0.035	U		NA		NA		NA		NA		0.0354	U		NA	
	Aroclor-1268	mg/kg	1	NS	NS	NA			0.034	U		NA		NA		0.035	U		NA		0.0354	U		NA		0.0378	U		NA		
	PCBs, Total	mg/kg	1	2	2	NA			0.034	U		NA		NA		0.035	U		NA</												

TABLE 2
Additional Characterization Soil Analytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth: Sample Date:						GLX-TPW-613A	GLX-TPW-614				GLX-TPW-614A	GLX-TPW-615						WASH-C15DS		WASH-NABUTDS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
							Analysis	Analyte	Sample Location:	RCS-1		Unlined Landfill**	Lined Landfill**	0-5 ft	02/08/2020	0-5 ft	10/20/2019	0-2/1 ft	10/20/2019	2-5/4 ft	10/20/2019	4 ft	10/20/2019	0-5 ft	02/08/2020	0-15 ft	10/20/2019	1 ft	10/20/2019	2-5/4 ft	10/20/2019	5-8/7 ft	10/20/2019	8-12/10 ft	10/20/2019	12-15/13 ft	10/20/2019	N/A	03/19/2020	5 ft	03/19/2020	N/A	03/20/2020	3 ft	03/20/2020																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

TABLE 2
Additional Characterization Soil Ananalytical Results
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth: Sample Date:						GLX-TPW-613A		GLX-TPW-614						GLX-TPW-614A		GLX-TPW-615								WASH-C15DS				WASH-NABUTDS									
						Analysis		Analyte	Sample Location:	RCS-1	Unlined Landfill**	Lined Landfill**	Field Dup																								
						02/08/2020	10/20/2019		10/20/2019		10/20/2019		10/20/2019		02/08/2020	10/20/2019		10/20/2019		10/20/2019		10/20/2019		10/20/2019		03/19/2020		03/19/2020		03/20/2020		03/20/2020					
Metals, TCLP																																					
Lead						mg/L	5*	NS	NS	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA					
General Chemistry																																					
Ignitability						none	NS	NS	NS	NI		NA		NA		NA		NI		NA		NA		NA		NA		NA		NI		NA					
Specific conductance						umhos/cm	NS	4,000	8,000	11		NA		NA		NA		25		NA		NA		NA		NA		NA		110		NA		180			
pH						su	NS	>2 <12.5	>2 <12.5	7.4		NA		7.5		6.3		NA		8.2		NA		NA		6.6		6.6		6.2		10.2		NA		10.9	
Reactive Cyanide						mg/kg	NS	< 250	< 250	10	U	NA		NA		NA		10	U	NA		NA		NA		NA		NA		10	U	NA		10	U	NA	
Reactive Sulfide						mg/kg	NS	< 500	< 500	10	U	NA		NA		NA		10	U	NA		NA		NA		NA		NA		10	U	NA		10	U	NA	

Notes:

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

mg/L - milligrams per liter.

su - Standard unit.

umhos/cm - Micro-mhos per centimeter.

E - Value exceeds calibration range.

I - The lower value for the two columns has been reported due to obvious interference.

NA - Sample not analyzed for the listed analyte.

N/A - Not available/applicable.

ND - Not detected.

NI - Not ignitable.

NS - No MassDEP standards exist for this analyte.

P - The RPD (relative percent difference) between the results for the two columns exceeds the method-specified criteria.

U - Analyte was not detected at specified quantitation limit.

Values in **bold** indicate the analyte was detected.

Values shown in bold and shaded type are equal to RCS-1 or exceed one or more of the listed MassDEP standards/criteria.

VOCs - Volatile Organic Compounds.

SVOCs - Semivolatile Organic Compounds.

PCBs - Polychlorinated Biphenyls.

TPH - Total Petroleum Hydrocarbons.

TCLP - Toxicity Characteristic Leaching Procedure.

RC - Reportable concentration.

* - EPA SW-846 Chapter 7, Table 7-1, Maximum Concentration of Contaminants for Toxicity Characteristic.

** - Reuse and Disposal of Contaminated Soil at Massachusetts Landfills, MassDEP Policy # COMM-97-001, August 1997.

^ - Sample depth for other/VOCs analysis; otherwise for all the analyses.

Table 2 - Summary of Analytical Results for Soil Samples -- 2019 and 2020
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth^: Sample Date:						GLX-TPW-413			GLX-TPW-414
						2 ft 4/6/2020	2 ft 4/6/2020	10 ft 4/6/2020	3 ft 4/15/2020
Analysis	Analyte	Unit	S-1/GW-1	S-1/GW-2	S-1/GW-3	Low VOC	High VOC		
VOCs									
	Methylene chloride	mg/kg	0.1	4	400	0.0066 U	0.4 U	0.003 U	0.0041 U
	1,1-Dichloroethane	mg/kg	0.4	9	500	0.0013 U	0.081 U	0.0006 U	0.00082 U
	Chloroform	mg/kg	0.4	0.2	500	0.002 U	0.12 U	0.00089 U	0.0012 U
	Carbon tetrachloride	mg/kg	10	5	30	0.0013 U	0.081 U	0.0006 U	0.00082 U
	1,2-Dichloropropane	mg/kg	0.1	0.1	30	0.0013 U	0.081 U	0.0006 U	0.00082 U
	Dibromochloromethane	mg/kg	0.005	0.03	20	0.0013 U	0.081 U	0.0006 U	0.00082 U
	1,1,2-Trichloroethane	mg/kg	0.1	2	40	0.0013 U	0.081 U	0.0006 U	0.00082 U
	Tetrachloroethene	mg/kg	1	10	30	0.0054	0.21	0.0033	0.00041 U
	Chlorobenzene	mg/kg	1	3	100	0.00066 U	0.04 U	0.0003 U	0.00041 U
	Trichlorofluoromethane	mg/kg	NS	NS	NS	0.0052 U	0.32 U	0.0024 U	0.0033 U
	1,2-Dichloroethane	mg/kg	0.1	0.1	20	0.0013 U	0.081 U	0.0006 U	0.00082 U
	1,1,1-Trichloroethane	mg/kg	30	500	500	0.00066 U	0.04 U	0.0003 U	0.00041 U
	Bromodichloromethane	mg/kg	0.1	0.1	30	0.00066 U	0.04 U	0.0003 U	0.00041 U
	trans-1,3-Dichloropropene	mg/kg	0.01(2)	0.4(2)	20(2)	0.0013 U	0.081 U	0.0006 U	0.00082 U
	cis-1,3-Dichloropropene	mg/kg	0.01(2)	0.4(2)	20(2)	0.00066 U	0.04 U	0.0003 U	0.00041 U
	1,3-Dichloropropene, Total	mg/kg	0.01	0.4	20	0.00066 U	0.04 U	0.0003 U	0.00041 U
	1,1-Dichloropropene	mg/kg	NS	NS	NS	0.00066 U	0.04 U	0.0003 U	0.00041 U
	Bromoform	mg/kg	0.1	1	300	0.0052 U	0.32 U	0.0024 U	0.0033 U
	1,1,2,2-Tetrachloroethane	mg/kg	0.005	0.02	10	0.00066 U	0.04 U	0.0003 U	0.00041 U
	Benzene	mg/kg	2	40	40	0.00066 U	0.04 U	0.0003 U	0.00041 U
	Toluene	mg/kg	30	500	500	0.0013 U	0.081 U	0.0006 U	0.00082 U
	Ethylbenzene	mg/kg	40	500	500	0.0013 U	0.081 U	0.0006 U	0.00082 U
	Chloromethane	mg/kg	NS	NS	NS	0.0052 U	0.32 U	0.0024 U	0.0033 U
	Bromomethane	mg/kg	0.5	0.5	30	0.0026 U	0.16 U	0.0012 U	0.0016 U
	Vinyl chloride	mg/kg	0.9	0.7	1	0.0013 U	0.081 U	0.0006 U	0.00082 U
	Chloroethane	mg/kg	NS	NS	NS	0.0026 U	0.16 U	0.0012 U	0.0016 U
	1,1-Dichloroethene	mg/kg	3	40	500	0.0013 U	0.081 U	0.0006 U	0.00082 U
	trans-1,2-Dichloroethene	mg/kg	1	1	500	0.002 U	0.12 U	0.00089 U	0.0012 U
	Trichloroethene	mg/kg	0.3	0.3	30	0.00066 U	0.04 U	0.0003 U	0.00041 U
	1,2-Dichlorobenzene	mg/kg	9	100	300	0.0026 U	0.16 U	0.0012 U	0.0016 U
	1,3-Dichlorobenzene	mg/kg	3	100	100	0.0026 U	0.16 U	0.0012 U	0.0016 U
	1,4-Dichlorobenzene	mg/kg	0.7	1	80	0.0026 U	0.16 U	0.0012 U	0.0016 U
	Methyl tert butyl ether	mg/kg	0.1	100	100	0.0026 U	0.16 U	0.0012 U	0.0016 U
	p/m-Xylene	mg/kg	NS	NS	NS	0.0026 U	0.16 U	0.0012 U	0.0016 U
	o-Xylene	mg/kg	NS	NS	NS	0.0013 U	0.081 U	0.0006 U	0.00082 U
	Xylenes (Total)	mg/kg	400	100	500	0.0013 U	0.081 U	0.0006 U	0.00082 U
	cis-1,2-Dichloroethene	mg/kg	0.3	0.1	100	0.0013 U	0.081 U	0.0006 U	0.00082 U
	1,2-Dichloroethene (total)	mg/kg	NS	NS	NS	0.0013 U	0.081 U	0.0006 U	0.00082 U
	Dibromomethane	mg/kg	NS	NS	NS	0.0026 U	0.16 U	0.0012 U	0.0016 U
	1,2,3-Trichloropropane	mg/kg	NS	NS	NS	0.0026 U	0.16 U	0.0012 U	0.0016 U
	Styrene	mg/kg	3	4	70	0.0013 U	0.081 U	0.0006 U	0.00082 U
	Dichlorodifluoromethane	mg/kg	NS	NS	NS	0.013 U	0.81 U	0.006 U	0.0082 U
	Acetone	mg/kg	6	50	400	0.48 E	0.81 U	0.066	0.03
	Carbon disulfide	mg/kg	NS	NS	NS	0.013 U	0.81 U	0.006 U	0.0082 U
	2-Butanone	mg/kg	4	50	400	0.013 U	0.81 U	0.006 U	0.0082 U
	4-Methyl-2-pentanone	mg/kg	0.4	50	400	0.013 U	0.81 U	0.006 U	0.0082 U
	2-Hexanone	mg/kg	NS	NS	NS	0.013 U	0.81 U	0.006 U	0.0082 U
	Bromochloromethane	mg/kg	NS	NS	NS	0.0026 U	0.16 U	0.0012 U	0.0016 U
	Tetrahydrofuran	mg/kg	NS	NS	NS	0.0052 U	0.32 U	0.0024 U	0.0033 U
	2,2-Dichloropropane	mg/kg	NS	NS	NS	0.0026 U	0.16 U	0.0012 U	0.0016 U
	1,2-Dibromoethane	mg/kg	0.1	0.1	1	0.0013 U	0.081 U	0.0006 U	0.00082 U
	1,3-Dichloropropane	mg/kg	NS	NS	NS	0.0026 U	0.16 U	0.0012 U	0.0016 U
	1,1,1,2-Tetrachloroethane	mg/kg	0.1	0.1	80	0.00066 U	0.04 U	0.0003 U	0.00041 U
	Bromobenzene	mg/kg	NS	NS	NS	0.0026 U	0.16 U	0.0012 U	0.0016 U
	n-Butylbenzene	mg/kg	100(1)	100(1)	100(1)	0.0013 U	0.081 U	0.0006 U	0.00082 U
	sec-Butylbenzene	mg/kg	100(1)	100(1)	100(1)	0.0013 U	0.081 U	0.0006 U	0.00082 U
	tert-Butylbenzene	mg/kg	100(1)	100(1)	100(1)	0.0026 U	0.16 U	0.0012 U	0.0016 U
	o-Chlorotoluene	mg/kg	NS	NS	NS	0.0026 U	0.16 U	0.0012 U	0.0016 U
	p-Chlorotoluene	mg/kg	NS	NS	NS	0.0026 U	0.16 U	0.0012 U	0.0016 U

Table 2 - Summary of Analytical Results for Soil Samples -- 2019 and 2020
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location: Sample Depth^: Sample Date:						GLX-TPW-413			GLX-TPW-414
						2 ft 4/6/2020	2 ft 4/6/2020	10 ft 4/6/2020	3 ft 4/15/2020
Analysis	Analyte	Unit	S-1/GW-1	S-1/GW-2	S-1/GW-3	Low VOC	High VOC		
	1,2-Dibromo-3-chloropropane	mg/kg	NS	NS	NS	0.0039 U	0.24 U	0.0018 U	0.0024 U
	Hexachlorobutadiene	mg/kg	30	30	30	0.0052 U	0.32 U	0.0024 U	0.0033 U
	Isopropylbenzene	mg/kg	100(1)	100(1)	100(1)	0.0013 U	0.081 U	0.0006 U	0.00082 U
	p-Isopropyltoluene	mg/kg	100(1)	100(1)	100(1)	0.0013 U	0.081 U	0.0006 U	0.00082 U
	Naphthalene	mg/kg	4	20	500	0.0052 U	0.32 U	0.0024 U	0.0033 U
	n-Propylbenzene	mg/kg	100(1)	100(1)	100(1)	0.0013 U	0.081 U	0.0006 U	0.00082 U
	1,2,3-Trichlorobenzene	mg/kg	NS	NS	NS	0.0026 U	0.16 U	0.0012 U	0.0016 U
	1,2,4-Trichlorobenzene	mg/kg	2	6	700	0.0026 U	0.16 U	0.0012 U	0.0016 U
	1,3,5-Trimethylbenzene	mg/kg	100(1)	100(1)	100(1)	0.0026 U	0.16 U	0.0012 U	0.0016 U
	1,2,4-Trimethylbenzene	mg/kg	100(1)	100(1)	100(1)	0.0026 U	0.16 U	0.0012 U	0.0016 U
	Ethyl ether	mg/kg	NS	NS	NS	0.0026 U	0.16 U	0.0012 U	0.0016 U
	Isopropyl Ether	mg/kg	NS	NS	NS	0.0026 U	0.16 U	0.0012 U	0.0016 U
	Ethyl-Tert-Butyl-Ether	mg/kg	NS	NS	NS	0.0026 U	0.16 U	0.0012 U	0.0016 U
	Tertiary-Amyl Methyl Ether	mg/kg	NS	NS	NS	0.0026 U	0.16 U	0.0012 U	0.0016 U
	1,4-Dioxane	mg/kg	0.2	6	20	0.1 U	6.4 U	0.048 U	0.065 U

Notes:
mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).
E - Value exceeds calibration range.
N/A - Not applicable.
NS - No MassDEP standards exist for this analyte.
U - Analyte was not detected at specified quantitation limit.
Values in **bold** indicate the analyte was detected.
Values shown in bold and shaded type exceed one or more of the listed standards/criteria.
VOCs - Volatile Organic Compounds.
^ - Sample depth for other/VOCs analysis; otherwise for all the analyses.

Table 2 - Summary of Analytical Results for Soil Samples -- 2019 and 2020
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location:						GLX-TPW-413					
Lab Sample ID: Sample Depth^: Sample Date:						L2014666-02 2 ft 4/6/2020		L2016435-01/ L2014666-01/ L2014666-02 0-5/2 ft 4/6/2020		L2016435-02/ L2014666-03/ L2014666-04 5-10/10 ft 4/6/2020	
Analysis	Analyte	Unit	RCS-1	Unlined Landfill*	Lined Landfill*	Low VOC		High VOC			
SVOCs											
	Acenaphthene	mg/kg	4	NS	NS	NA		0.16	U	0.15	U
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	NA		0.2	U	0.19	U
	Hexachlorobenzene	mg/kg	0.7	NS	NS	NA		0.083	U	0.079	U
	Bis(2-chloroethyl)ether	mg/kg	0.7	NS	NS	NA		0.083	U	0.079	U
	2-Chloronaphthalene	mg/kg	1,000	NS	NS	NA		0.2	U	0.19	U
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	NA		0.2	U	0.19	U
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	NA		0.2	U	0.19	U
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	NA		0.083	U	0.079	U
	3,3'-Dichlorobenzidine	mg/kg	3	NS	NS	NA		0.2	U	0.19	U
	2,4-Dinitrotoluene	mg/kg	0.7	NS	NS	NA		0.083	U	0.079	U
	2,6-Dinitrotoluene	mg/kg	100	NS	NS	NA		0.2	U	0.19	U
	Azobenzene	mg/kg	NS	NS	NS	NA		0.2	U	0.19	U
	Fluoranthene	mg/kg	1,000	NS	NS	NA		0.28		0.11	U
	4-Bromophenyl phenyl ether	mg/kg	100	NS	NS	NA		0.2	U	0.19	U
	Bis(2-chloroisopropyl)ether	mg/kg	0.7	NS	NS	NA		0.083	U	0.079	U
	Bis(2-chloroethoxy)methane	mg/kg	500	NS	NS	NA		0.21	U	0.2	U
	Hexachlorobutadiene	mg/kg	30	NS	NS	NA		0.2	U	0.19	U
	Hexachloroethane	mg/kg	0.7	NS	NS	NA		0.083	U	0.079	U
	Isophorone	mg/kg	100	NS	NS	NA		0.18	U	0.17	U
	Naphthalene	mg/kg	4	NS	NS	NA		0.2	U	0.19	U
	Nitrobenzene	mg/kg	500	NS	NS	NA		0.18	U	0.17	U
	Bis(2-Ethylhexyl)phthalate	mg/kg	90	NS	NS	NA		0.2	U	0.19	U
	Butyl benzyl phthalate	mg/kg	100	NS	NS	NA		0.2	U	0.19	U
	Di-n-butylphthalate	mg/kg	50	NS	NS	NA		0.2	U	0.19	U
	Di-n-octylphthalate	mg/kg	1,000	NS	NS	NA		0.2	U	0.19	U
	Diethyl phthalate	mg/kg	10	NS	NS	NA		0.2	U	0.19	U
	Dimethyl phthalate	mg/kg	0.7	NS	NS	NA		0.083	U	0.079	U
	Benzo(a)anthracene	mg/kg	7	NS	NS	NA		0.14		0.11	U
	Benzo(a)pyrene	mg/kg	2	NS	NS	NA		0.16		0.15	U
	Benzo(b)fluoranthene	mg/kg	7	NS	NS	NA		0.19		0.11	U
	Benzo(k)fluoranthene	mg/kg	70	NS	NS	NA		0.12	U	0.11	U
	Chrysene	mg/kg	70	NS	NS	NA		0.15		0.11	U
	Acenaphthylene	mg/kg	1	NS	NS	NA		0.16	U	0.15	U
	Anthracene	mg/kg	1,000	NS	NS	NA		0.12	U	0.11	U
	Benzo(ghi)perylene	mg/kg	1,000	NS	NS	NA		0.16	U	0.15	U
	Fluorene	mg/kg	1,000	NS	NS	NA		0.2	U	0.19	U
	Phenanthrene	mg/kg	10	NS	NS	NA		0.16		0.11	U
	Dibenzo(a,h)anthracene	mg/kg	0.7	NS	NS	NA		0.083	U	0.079	U
	Indeno(1,2,3-cd)Pyrene	mg/kg	7	NS	NS	NA		0.16	U	0.15	U
	Pyrene	mg/kg	1,000	NS	NS	NA		0.26		0.11	U
	Aniline	mg/kg	1,000	NS	NS	NA		0.24	U	0.22	U
	4-Chloroaniline	mg/kg	1	NS	NS	NA		0.2	U	0.19	U
	Dibenzofuran	mg/kg	100	NS	NS	NA		0.2	U	0.19	U
	2-Methylnaphthalene	mg/kg	0.7	NS	NS	NA		0.083	U	0.079	U
	Acetophenone	mg/kg	1,000	NS	NS	NA		0.2	U	0.19	U
	2,4,6-Trichlorophenol	mg/kg	0.7	NS	NS	NA		0.083	U	0.079	U
	2-Chlorophenol	mg/kg	0.7	NS	NS	NA		0.083	U	0.079	U
	2,4-Dichlorophenol	mg/kg	0.7	NS	NS	NA		0.083	U	0.079	U
	2,4-Dimethylphenol	mg/kg	0.7	NS	NS	NA		0.083	U	0.079	U
	2-Nitrophenol	mg/kg	100	NS	NS	NA		0.43	U	0.4	U
	4-Nitrophenol	mg/kg	100	NS	NS	NA		0.28	U	0.26	U
	2,4-Dinitrophenol	mg/kg	3	NS	NS	NA		0.95	U	0.9	U
	Pentachlorophenol	mg/kg	3	NS	NS	NA		0.4	U	0.38	U
	Phenol	mg/kg	1	NS	NS	NA		0.2	U	0.19	U
	2-Methylphenol	mg/kg	500	NS	NS	NA		0.2	U	0.19	U
	3-Methylphenol/4-Methylphenol	mg/kg	500	NS	NS	NA		0.28	U	0.27	U
	2,4,5-Trichlorophenol	mg/kg	4	NS	NS	NA		0.2	U	0.19	U

Table 2 - Summary of Analytical Results for Soil Samples -- 2019 and 2020
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location:						GLX-TPW-413					
Lab Sample ID: Sample Depth^: Sample Date:						L2014666-02 2 ft 4/6/2020	L2016435-01/ L2014666-01/ L2014666-02 0-5/2 ft 4/6/2020	L2016435-02/ L2014666-03/ L2014666-04 5-10/10 ft 4/6/2020			
Analysis	Analyte	Unit	RCS-1	Unlined Landfill*	Lined Landfill*	Low VOC	High VOC				
	Pyridine	mg/kg	500	NS	NS	NA	0.21	U	0.2	U	
	Total SVOCs	mg/kg	N/A	100	100	NA	1.34		ND		
Pesticides											
	Delta-BHC	mg/kg	10	NS	NS	NA	0.00190	U	0.00171	U	
	Lindane	mg/kg	0.003	NS	NS	NA	0.000634	U	0.000569	U	
	Alpha-BHC	mg/kg	50	NS	NS	NA	0.000792	U	0.000711	U	
	Beta-BHC	mg/kg	10	NS	NS	NA	0.00190	U	0.00171	U	
	Heptachlor	mg/kg	0.3	NS	NS	NA	0.000951	U	0.000853	U	
	Aldrin	mg/kg	0.08	NS	NS	NA	0.00190	U	0.00171	U	
	Heptachlor epoxide	mg/kg	0.1	NS	NS	NA	0.00356	U	0.00320	U	
	Endrin	mg/kg	10	NS	NS	NA	0.000792	U	0.000711	U	
	Endrin ketone	mg/kg	NS	NS	NS	NA	0.00190	U	0.00171	U	
	Dieldrin	mg/kg	0.08	NS	NS	NA	0.00119	U	0.00107	U	
	4,4'-DDE	mg/kg	6	NS	NS	NA	0.00190	U	0.00171	U	
	4,4'-DDD	mg/kg	8	NS	NS	NA	0.00190	U	0.00171	U	
	4,4'-DDT	mg/kg	6	NS	NS	NA	0.0137		0.00320	U	
	Endosulfan I	mg/kg	0.5	NS	NS	NA	0.00190	U	0.00171	U	
	Endosulfan II	mg/kg	0.5	NS	NS	NA	0.00190	U	0.00171	U	
	Endosulfan sulfate	mg/kg	0.5	NS	NS	NA	0.000792	U	0.000711	U	
	Methoxychlor	mg/kg	200	NS	NS	NA	0.00356	U	0.00320	U	
	Chlordane	mg/kg	0.7	NS	NS	NA	0.0158	U	0.0142	U	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	NA	0.00190	U	0.00171	U	
Herbicides											
	MCPP	mg/kg	NS	NS	NS	NA	4	U	3.7	U	
	MCPA	mg/kg	100	NS	NS	NA	4	U	3.7	U	
	Dalapon	mg/kg	1,000	NS	NS	NA	0.04	U	0.037	U	
	Dicamba	mg/kg	500	NS	NS	NA	0.04	U	0.037	U	
	Dichloroprop	mg/kg	NS	NS	NS	NA	0.04	U	0.037	U	
	2,4-D	mg/kg	100	NS	NS	NA	0.04	U	0.037	U	
	2,4-DB	mg/kg	100	NS	NS	NA	0.04	U	0.037	U	
	2,4,5-T	mg/kg	100	NS	NS	NA	0.04	U	0.037	U	
	2,4,5-TP (Silvex)	mg/kg	100	NS	NS	NA	0.04	U	0.037	U	
PCB Aroclors											
	Aroclor-1016	mg/kg	1	NS	NS	NA	0.0396	U	0.0364	U	
	Aroclor-1221	mg/kg	1	NS	NS	NA	0.0396	U	0.0364	U	
	Aroclor-1232	mg/kg	1	NS	NS	NA	0.0396	U	0.0364	U	
	Aroclor-1242	mg/kg	1	NS	NS	NA	0.0396	U	0.0364	U	
	Aroclor-1248	mg/kg	1	NS	NS	NA	0.0396	U	0.0364	U	
	Aroclor-1254	mg/kg	1	NS	NS	NA	0.0396	U	0.0364	U	
	Aroclor-1260	mg/kg	1	NS	NS	NA	0.0396	U	0.0364	U	
	Aroclor-1262	mg/kg	1	NS	NS	NA	0.0396	U	0.0364	U	
	Aroclor-1268	mg/kg	1	NS	NS	NA	0.0396	U	0.0364	U	
	PCBs, Total	mg/kg	1	2	2	NA	0.0396	U	0.0364	U	
TPH											
	Total Petroleum Hydrocarbons C10-C36	mg/kg	1,000	2,500	5,000	NA	39.4	U	36.7	U	
Metals, total											
	Arsenic	mg/kg	20	40	40	NA	8.37		5.91		
	Barium	mg/kg	1,000	NS	NS	NA	53.8		71.5		
	Cadmium	mg/kg	70	30	80	NA	0.458	U	0.442	U	
	Chromium	mg/kg	100	1,000	1,000	NA	24.2		37.2		
	Lead	mg/kg	200	1,000	2,000	NA	54.2		7.39		
	Mercury	mg/kg	20	10	10	NA	0.118		0.083	U	
	Selenium	mg/kg	400	NS	NS	NA	2.29	U	2.21	U	
	Silver	mg/kg	100	NS	NS	NA	0.458	U	0.442	U	
General Chemistry											
	Ignitability		NS	N/A	N/A	NA	NI		NI		
	Specific conductance	umhos/cm	NS	4,000	8,000	NA	47		21		
	pH	su	NS	>2 <12.5	>2 <12.5	NA	7.6		7.9		

Table 2 - Summary of Analytical Results for Soil Samples -- 2019 and 2020
Green Line Extension Project - Washington Street
Somerville, Massachusetts

Sample Location:						GLX-TPW-413					
Lab Sample ID:						L2014666-02		L2016435-01/		L2016435-02/	
Sample Depth^:								L2014666-01/		L2014666-03/	
Sample Date:								L2014666-02		L2014666-04	
						2 ft		0-5/2 ft		5-10/10 ft	
						4/6/2020		4/6/2020		4/6/2020	
Analysis	Analyte	Unit	RCS-1	Unlined Landfill*	Lined Landfill*	Low VOC		High VOC			
	Reactive Cyanide	mg/kg	NS	< 250	< 250	NA		10	U	10	U
	Reactive Sulfide	mg/kg	NS	< 500	< 500	NA		10	U	10	U

Notes:

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

mg/L - milligrams per liter.

su - Standard unit.

umhos/cm - Micro-mhos per centimeter.

E - Value exceeds calibration range.

NA - Sample not analyzed for the listed analyte.

N/A - Not available/applicable.

ND - Not detected.

NI - Not ignitable.

NS - No MassDEP standards exist for this analyte.

U - Analyte was not detected at specified quantitation limit.

Values in **bold** indicate the analyte was detected.

VOCs - Volatile Organic Compounds.

SVOCs - Semivolatile Organic Compounds.

PCBs - Polychlorinated Biphenyls.

RC - Reportable Concentration.

TPH - Total Petroleum Hydrocarbons.

* - Reuse and Disposal of Contaminated Soil at Massachusetts Landfills, MassDEP Policy # COMM-97-001, August 1997.

^ - Sample depth for other/VOCs analysis; otherwise for all the analyses.

(1) - MassDEP RC for C9-C10 aromatics used.

(2) - MassDEP RC for Dichloropropene used.

(3) - MassDEP RC for Dichloropropane used.

(4) - MassDEP RC for Chlorotoluene used.

Table 2 - Summary of Analytical Results for Soil Samples -- 2019 and 2020
Green Line Extension Project - Washington Street
Somerville, Massachusetts

LOCATION					WASH-MH212-DC-COMP		Wash-MH186-DC-Comp		
SAMPLING DATE					7/17/2020		08/07/2020		
LAB SAMPLE ID					20G1285-01		20H0388-01		
SAMPLE TYPE					SOIL		SOIL		
		CasNum	RCS-1-14	RCS-2-14	Units	Results	Qual	Results	Qual
General Chemistry									
	Specific Conductance @ 25 C	SC			umhos/cm	42		16	
	Solids, Total	TSOLIDS			%	96.1		91.5	
	pH (H)	12408-02-5			SU	4	U	7.7	
	Cyanide, Reactive	GIS-250-012			mg/kg	20	U	4	U
	Sulfide, Reactive	RSULF			mg/kg	8.9		20	U
Ignitability of Solids									
	Ignitability	IGNIT				Absent		Absent	
MCP Chlorinated Herbicides									
	2,4-D	94-75-7	100	1000	mg/kg	0.026	U	0.027	U
	2,4-DB	94-82-6	100	1000	mg/kg	0.026	U	0.027	U
	2,4,5-TP (Silvex)	93-72-1	100	1000	mg/kg	0.0026	U	0.0027	U
	2,4,5-T	93-76-5	100	1000	mg/kg	0.0026	U	0.0027	U
	Dalapon	75-99-0	1000	10000	mg/kg	0.064	U	0.067	U
	Dicamba	1918-00-9	500	5000	mg/kg	0.0026	U	0.0027	U
	Dichloroprop	120-36-5			mg/kg	0.026	U	0.027	U
	Dinoseb	88-85-7	500	5000	mg/kg	0.013	U	0.013	U
	MCPA	94-74-6	100	1000	mg/kg	2.6	U	2.7	U
	MCPP	93-65-2			mg/kg	2.6	U	2.7	U
MCP Organochlorine Pesticides									
	Aldrin	309-00-2	0.08	0.5	mg/kg	0.052	U	0.054	U
	Alpha-BHC	319-84-6	50	500	mg/kg	0.052	U	0.054	U
	Beta-BHC	319-85-7	10	100	mg/kg	0.052	U	0.054	U
	Delta-BHC	319-86-8	10	100	mg/kg	0.052	U	0.054	U
	Lindane	58-89-9	0.003	0.5	mg/kg	0.021	U	0.021	U
	Chlordane	57-74-9	0.7	30	mg/kg	0.21	U	0.21	U
	4,4'-DDD	72-54-8	8	40	mg/kg	0.042	U	0.043	U
	4,4'-DDE	72-55-9	6	30	mg/kg	0.042	U	0.043	U
	4,4'-DDT	50-29-3	6	30	mg/kg	0.21		0.043	U
	Dieldrin	60-57-1	0.08	0.5	mg/kg	0.042	U	0.043	U
	Endosulfan I	959-98-8	0.5	1	mg/kg	0.052	U	0.054	U
	Endosulfan II	33213-65-9	0.5	1	mg/kg	0.083	U	0.086	U
	Endosulfan sulfate	1031-07-8			mg/kg	0.083	U	0.086	U
	Endrin	72-20-8	10	20	mg/kg	0.083	U	0.086	U
	Endrin ketone	53494-70-5			mg/kg	0.083	U	0.086	U
	Heptachlor	76-44-8	0.3	2	mg/kg	0.052	U	0.054	U
	Heptachlor epoxide	1024-57-3	0.1	0.9	mg/kg	0.052	U	0.054	U
	Hexachlorobenzene	118-74-1	0.7	0.8	mg/kg	0.062	U	0.064	U
	Methoxychlor	72-43-5	200	400	mg/kg	0.52	U	0.54	U
MCP Polychlorinated Biphenyls									
	Aroclor 1016	12674-11-2	1	4	mg/kg	0.081	U	0.087	U
	Aroclor 1221	11104-28-2	1	4	mg/kg	0.081	U	0.087	U
	Aroclor 1232	11141-16-5	1	4	mg/kg	0.081	U	0.087	U
	Aroclor 1242	53469-21-9	1	4	mg/kg	0.081	U	0.087	U
	Aroclor 1248	12672-29-6	1	4	mg/kg	0.081	U	0.087	U
	Aroclor 1254	11097-69-1	1	4	mg/kg	0.081	U	0.087	U
	Aroclor 1260	11096-82-5	1	4	mg/kg	0.081	U	0.087	U
	Aroclor 1262	37324-23-5	1	4	mg/kg	0.081	U	0.087	U
	Aroclor 1268	11100-14-4	1	4	mg/kg	0.081	U	0.087	U
	PCBs, Total	1336-36-3	1	4	mg/kg	0.081	U	0.087	U
MCP Semivolatile Organics									
	Acenaphthene	83-32-9	4	3000	mg/kg	0.18	U	0.18	U
	Acenaphthylene	208-96-8	1	10	mg/kg	0.18	U	0.18	U
	Acetophenone	98-86-2	1000	10000	mg/kg	0.35	U	0.37	U
	Aniline	62-53-3	1000	10000	mg/kg	0.35	U	0.37	U
	Anthracene	120-12-7	1000	3000	mg/kg	0.18	U	0.18	U
	Benzo(a)anthracene	56-55-3	7	40	mg/kg	0.47		0.44	
	Benzo(a)pyrene	50-32-8	2	7	mg/kg	0.45		0.43	
	Benzo(b)fluoranthene	205-99-2	7	40	mg/kg	0.59		0.55	
	Benzo(ghi)perylene	191-24-2	1000	3000	mg/kg	0.26		0.24	
	Benzo(k)fluoranthene	207-08-9	70	400	mg/kg	0.23		0.2	
	Bis(2-chloroethoxy)methane	111-91-1	500	5000	mg/kg	0.35	U	0.37	U
	Bis(2-chloroethyl)ether	111-44-4	0.7	0.7	mg/kg	0.35	U	0.37	U
	Bis(2-chloroisopropyl)ether	39638-32-9	0.7	0.7	mg/kg	0.35	U	0.37	U
	Bis(2-ethylhexyl)phthalate	117-81-7	90	600	mg/kg	0.35	U	0.37	U
	4-Bromophenyl phenyl ether	101-55-3	100	1000	mg/kg	0.35	U	0.37	U
	Butyl benzyl phthalate	85-68-7	100	1000	mg/kg	0.35	U	0.37	U
	4-Chloroaniline	106-47-8	1	3	mg/kg	0.69	U	0.72	U
	2-Chloronaphthalene	91-58-7	1000	10000	mg/kg	0.35	U	0.37	U
	2-Chlorophenol	95-57-8	0.7	100	mg/kg	0.35	U	0.37	U
	Chrysene	218-01-9	70	400	mg/kg	0.48		0.47	
	Dibenzo(a,h)anthracene	53-70-3	0.7	4	mg/kg	0.18	U	0.18	U
	Dibenzofuran	132-64-9	100	1000	mg/kg	0.35	U	0.37	U
	Di-n-butylphthalate	84-74-2	50	500	mg/kg	0.35	U	0.37	U
	1,2-Dichlorobenzene	95-50-1	9	100	mg/kg	0.35	U	0.37	U
	1,3-Dichlorobenzene	541-73-1	3	200	mg/kg	0.35	U	0.37	U
	1,4-Dichlorobenzene	106-46-7	0.7	1	mg/kg	0.35	U	0.37	U
	3,3'-Dichlorobenzidine	91-94-1	3	20	mg/kg	0.18	U	0.18	U
	2,4-Dichlorophenol	120-83-2	0.7	40	mg/kg	0.35	U	0.37	U
	Diethyl phthalate	84-66-2	10	200	mg/kg	0.35	U	0.37	U
	2,4-Dimethylphenol	105-67-9	0.7	100	mg/kg	0.35	U	0.37	U
	Dimethyl phthalate	131-11-3	0.7	50	mg/kg	0.35	U	0.37	U
	2,4-Dinitrophenol	51-28-5	3	50	mg/kg	0.69	U	0.72	U
	2,4-Dinitrotoluene	121-14-2	0.7	10	mg/kg	0.35	U	0.37	U
	2,6-Dinitrotoluene	606-20-2	100	1000	mg/kg	0.35	U	0.37	U
	Di-n-octylphthalate	117-84-0	1000	10000	mg/kg	0.35	U	0.37	U
	Azobenzene	122-66-7	50	500	mg/kg	0.35	U	0.37	U
	Fluoranthene	206-44-0	1000	3000	mg/kg	0.92		0.84	
	Fluorene	86-73-7	1000	3000	mg/kg	0.18	U	0.18	U
	Hexachlorobenzene	118-74-1	0.7	0.8	mg/kg	0.35	U	0.37	U
	Hexachlorobutadiene	87-68-3	30	100	mg/kg	0.35	U	0.37	U
	Hexachloroethane	67-72-1	0.7	3	mg/kg	0.35	U	0.37	U
	Indeno(1,2,3-cd)pyrene	193-39-5	7	40	mg/kg	0.28		0.3	
	Isophorone	78-59-1	100	1000	mg/kg	0.35	U	0.37	U
	2-Methylnaphthalene	91-57-6	0.7	80	mg/kg	0.18	U	0.18	U
	2-Methylphenol	95-48-7	500	5000	mg/kg	0.35	U	0.37	U
	3-Methylphenol/4-Methylphenol	108-39-4/106-44-5	500	5000	mg/kg	0.35	U	0.37	U
	Naphthalene	91-20-3	4	20	mg/kg	0.18	U	0.18	U
	Nitrobenzene	98-95-3	500	5000	mg/kg	0.35	U	0.37	U
	2-Nitrophenol	88-75-5	100	1000	mg/kg	0.35	U	0.37	U
	4-Nitrophenol	100-02-7	100	1000	mg/kg	0.69	U	0.72	U
	Pentachlorophenol	87-86-5	3	10	mg/kg	0.35	U	0.37	U
	Phenanthrene	85-01-8	10	1000	mg/kg	0.62		0.6	
	Phenol	108-95-2	1	20	mg/kg	0.35	U	0.37	U
	Pyrene	129-00-0	1000	3000	mg/kg	0.87		0.92	
	Pyridine	110-86-1	500	5000	mg/kg	0.35	U	0.37	U
	1,2,4-Trichlorobenzene	120-82-1	2	6	mg/kg	0.35	U	0.37	U
	2,4,5-Trichlorophenol	95-95-4	4	600	mg/kg	0.35	U	0.37	U

Table 2 - Summary of Analytical Results for Soil Samples -- 2019 and 2020
Green Line Extension Project - Washington Street
Somerville, Massachusetts

LOCATION					WASH-MH212-DC-COMP		Wash-MH186-DC-Comp		
SAMPLING DATE					7/17/2020		08/07/2020		
LAB SAMPLE ID					20G1285-01		20H0388-01		
SAMPLE TYPE					SOIL		SOIL		
		CasNum	RCS-1-14	RCS-2-14	Units	Results	Qual	Results	Qual
	2,4,6-Trichlorophenol	88-06-2	0.7	20	mg/kg	0.35	U	0.37	U
	Total SVOCs				mg/kg	5.17		4.99	
MCP Total Metals									
	Antimony, Total	7440-36-0	20	30	mg/kg	1.7	U	1.8	U
	Arsenic, Total	7440-38-2	20	20	mg/kg	6.2		9.8	
	Barium, Total	7440-39-3	1000	3000	mg/kg	44		64	
	Beryllium, Total	7440-41-7	90	200	mg/kg	0.40		0.47	
	Cadmium, Total	7440-43-9	70	100	mg/kg	0.34	U	0.35	U
	Chromium, Total	7440-47-3	100	200	mg/kg	24		22	
	Lead, Total	7439-92-1	200	600	mg/kg	66		170	
	Mercury, Total	7439-97-6	20	30	mg/kg	0.22		0.14	
	Nickel, Total	7440-02-0	600	1000	mg/kg	22		21	
	Selenium, Total	7782-49-2	400	700	mg/kg	3.4	U	3.5	U
	Silver, Total	7440-22-4	100	200	mg/kg	0.34	U	0.35	U
	Thallium, Total	7440-28-0	8	60	mg/kg	1.7	U	1.8	U
	Vanadium, Total	7440-62-2	400	700	mg/kg	36		41	
	Zinc, Total	7440-66-6	1000	3000	mg/kg	77		90	

U - Not detected at the reported detection limit for the sample.

Table 2 - Summary of Analytical Results for Soil Samples -- 2019 and 2020
Green Line Extension Project - Washington Street
Somerville, Massachusetts

LOCATION					WASH-MH119-DC-COMP		WASH-MH281-DC-COMP	
SAMPLING DATE					8/18/2020		8/18/2020	
LAB SAMPLE ID					L2034460-01		L2034460-02	
SAMPLE TYPE					SOIL		SOIL	
	CasNum	MA-LLAND	MA-ULAND	Units	Results	Qual	Results	Qual
General Chemistry								
	Specific Conductance @ 25 C	NONE	8000	4000	umhos/cm	100	190	
	Solids, Total	NONE			%	91	91.4	
	pH (H)	12408-02-5			SU	7.8	8.1	
	Cyanide, Reactive	57-12-5			mg/kg	10	10	U
	Sulfide, Reactive	NONE			mg/kg	10	10	U
Ignitability of Solids								
	Ignitability	NONE			NI		NI	
MCP Chlorinated Herbicides								
	MCPP	93-65-2			mg/kg	3.6	3.6	U
	MCPA	94-74-6			mg/kg	3.6	3.6	U
	Dalapon	75-99-0			mg/kg	0.036	0.036	U
	Dicamba	1918-00-9			mg/kg	0.036	0.036	U
	Dichloroprop	120-36-5			mg/kg	0.036	0.036	U
	2,4-D	94-75-7			mg/kg	0.036	0.036	U
	2,4-DB	94-82-6			mg/kg	0.036	0.036	U
	2,4,5-T	93-76-5			mg/kg	0.036	0.036	U
	2,4,5-TP (Silvex)	93-72-1			mg/kg	0.036	0.036	U
MCP Organochlorine Pesticides								
	Delta-BHC	319-86-8			mg/kg	0.00174	0.00171	U
	Lindane	58-89-9			mg/kg	0.00058	0.000569	U
	Alpha-BHC	319-84-6			mg/kg	0.000724	0.000711	U
	Beta-BHC	319-85-7			mg/kg	0.00174	0.00171	U
	Heptachlor	76-44-8			mg/kg	0.000869	0.000854	U
	Aldrin	309-00-2			mg/kg	0.00174	0.00171	U
	Heptachlor epoxide	1024-57-3			mg/kg	0.00326	0.0032	U
	Endrin	72-20-8			mg/kg	0.000724	0.000711	U
	Endrin ketone	53494-70-5			mg/kg	0.00174	0.00171	U
	Dieldrin	60-57-1			mg/kg	0.00109	0.00107	U
	4,4'-DDE	72-55-9			mg/kg	0.00174	0.00171	U
	4,4'-DDD	72-54-8			mg/kg	0.00174	0.00171	U
	4,4'-DDT	50-29-3			mg/kg	0.00326	0.0032	U
	Endosulfan I	959-98-8			mg/kg	0.00174	0.00171	U
	Endosulfan II	33213-65-9			mg/kg	0.00174	0.00171	U
	Endosulfan sulfate	1031-07-8			mg/kg	0.000724	0.000711	U
	Methoxychlor	72-43-5			mg/kg	0.00326	0.0032	U
	Chlordane	57-74-9			mg/kg	0.0145	0.0142	U
	Hexachlorobenzene	118-74-1			mg/kg	0.00174	0.00171	U
MCP Polychlorinated Biphenyls								
	Aroclor 1016	12674-11-2			mg/kg	0.0357	0.0346	U
	Aroclor 1221	11104-28-2			mg/kg	0.0357	0.0346	U
	Aroclor 1232	11141-16-5			mg/kg	0.0357	0.0346	U
	Aroclor 1242	53469-21-9			mg/kg	0.0357	0.0346	U
	Aroclor 1248	12672-29-6			mg/kg	0.0357	0.0346	U
	Aroclor 1254	11097-69-1			mg/kg	0.0357	0.0346	U
	Aroclor 1260	11096-82-5			mg/kg	0.0357	0.0346	U
	Aroclor 1262	37324-23-5			mg/kg	0.0357	0.0346	U
	Aroclor 1268	11100-14-4			mg/kg	0.0357	0.0346	U
	PCBs, Total	1336-36-3	2	2	mg/kg	0.0357	0.0346	U
MCP Semivolatile Organics								
	Acenaphthene	83-32-9			mg/kg	0.14	0.14	
	1,2,4-Trichlorobenzene	120-82-1			mg/kg	0.18	0.18	U
	Hexachlorobenzene	118-74-1			mg/kg	0.076	0.076	U
	Bis(2-chloroethyl)ether	111-44-4			mg/kg	0.076	0.076	U
	2-Chloronaphthalene	91-58-7			mg/kg	0.18	0.18	U
	1,2-Dichlorobenzene	95-50-1			mg/kg	0.18	0.18	U
	1,3-Dichlorobenzene	541-73-1			mg/kg	0.18	0.18	U
	1,4-Dichlorobenzene	106-46-7			mg/kg	0.076	0.076	U
	3,3'-Dichlorobenzidine	91-94-1			mg/kg	0.18	0.18	U
	2,4-Dinitrotoluene	121-14-2			mg/kg	0.076	0.076	U
	2,6-Dinitrotoluene	606-20-2			mg/kg	0.18	0.18	U
	Azobenzene	103-33-3			mg/kg	0.18	0.18	U
	Fluoranthene	206-44-0			mg/kg	0.27	1.6	
	4-Bromophenyl phenyl ether	101-55-3			mg/kg	0.18	0.18	U
	Bis(2-chloroisopropyl)ether	108-60-1			mg/kg	0.076	0.076	U
	Bis(2-chloroethoxy)methane	111-91-1			mg/kg	0.2	0.2	U
	Hexachlorobutadiene	87-68-3			mg/kg	0.18	0.18	U
	Hexachloroethane	67-72-1			mg/kg	0.076	0.076	U
	Isophorone	78-59-1			mg/kg	0.16	0.16	U
	Naphthalene	91-20-3			mg/kg	0.18	0.57	
	Nitrobenzene	98-95-3			mg/kg	0.16	0.16	U
	Bis(2-ethylhexyl)phthalate	117-81-7			mg/kg	0.18	0.18	U
	Butyl benzyl phthalate	85-68-7			mg/kg	0.18	0.18	U
	Di-n-butylphthalate	84-74-2			mg/kg	0.18	0.18	U
	Di-n-octylphthalate	117-84-0			mg/kg	0.18	0.18	U
	Diethyl phthalate	84-66-2			mg/kg	0.18	0.18	U
	Dimethyl phthalate	131-11-3			mg/kg	0.076	0.076	U
	Benzo(a)anthracene	56-55-3			mg/kg	0.2	1.3	
	Benzo(a)pyrene	50-32-8			mg/kg	0.17	1.2	
	Benzo(b)fluoranthene	205-99-2			mg/kg	0.26	1.6	
	Benzo(k)fluoranthene	207-08-9			mg/kg	0.11	0.36	U
	Chrysene	218-01-9			mg/kg	0.16	1.1	
	Acenaphthylene	208-96-8			mg/kg	0.14	0.31	
	Anthracene	120-12-7			mg/kg	0.11	0.38	
	Benzo(ghi)perylene	191-24-2			mg/kg	0.14	0.83	
	Fluorene	86-73-7			mg/kg	0.18	0.21	
	Phenanthrene	85-01-8			mg/kg	0.14	1	
	Dibenzo(a,h)anthracene	53-70-3			mg/kg	0.076	0.19	
	Indeno(1,2,3-cd)pyrene	193-39-5			mg/kg	0.14	0.92	
	Pyrene	129-00-0			mg/kg	0.26	1.8	
	Aniline	62-53-3			mg/kg	0.22	0.22	U
	4-Chloroaniline	106-47-8			mg/kg	0.18	0.18	U
	Dibenzofuran	132-64-9			mg/kg	0.18	0.18	U
	2-Methylnaphthalene	91-57-6			mg/kg	0.076	0.29	
	Acetophenone	98-86-2			mg/kg	0.18	0.18	U
	2,4,6-Trichlorophenol	88-06-2			mg/kg	0.076	0.076	U
	2-Chlorophenol	95-57-8			mg/kg	0.076	0.076	U
	2,4-Dichlorophenol	120-83-2			mg/kg	0.076	0.076	U
	2,4-Dimethylphenol	105-67-9			mg/kg	0.076	0.076	U
	2-Nitrophenol	88-75-5			mg/kg	0.39	0.39	U
	4-Nitrophenol	100-02-7			mg/kg	0.25	0.25	U
	2,4-Dinitrophenol	51-28-5			mg/kg	0.87	0.87	U
	Pentachlorophenol	87-86-5			mg/kg	0.36	0.36	U
	Phenol	108-95-2			mg/kg	0.18	0.18	U
	2-Methylphenol	95-48-7			mg/kg	0.18	0.18	U
	3-Methylphenol/4-Methylphenol	108-39-4/106-44-5			mg/kg	0.26	0.26	U
	2,4,5-Trichlorophenol	95-95-4			mg/kg	0.18	0.18	U
	Pyridine	110-86-1			mg/kg	0.2	0.2	U
	Total SVOCs		100	100	mg/kg	1.46	13.8	
MCP Total Metals								
	Antimony, Total	7440-36-0			mg/kg	2.16	2.15	U
	Arsenic, Total	7440-38-2	40	40	mg/kg	7.55	5.48	
	Barium, Total	7440-39-3			mg/kg	38.6	41.4	
	Beryllium, Total	7440-41-7			mg/kg	0.216	0.215	U
	Cadmium, Total	7440-43-9	80	30	mg/kg	0.565	0.593	
	Chromium, Total	7440-47-3	1000	1000	mg/kg	14.3	17	

Table 2 - Summary of Analytical Results for Soil Samples -- 2019 and 2020
Green Line Extension Project - Washington Street
Somerville, Massachusetts

LOCATIO					WASH-MH119-DC-COMP		WASH-MH281-DC-COMP	
SAMPLING DATE					8/18/2020		8/18/2020	
LAB SAMPLE ID					L2034460-01		L2034460-02	
SAMPLE TYPE					SOIL		SOIL	
	CasNum	MA-LLAND	MA-ULAND	Units	Results	Qual	Results	Qual
Lead, Total	7439-92-1	2000	1000	mg/kg	53.1		96.8	
Mercury, Total	7439-97-6	10	10	mg/kg	0.342		0.165	
Nickel, Total	7440-02-0			mg/kg	11.5		13.7	
Selenium, Total	7782-49-2			mg/kg	2.16	U	2.15	U
Silver, Total	7440-22-4			mg/kg	0.431	U	0.43	U
Thallium, Total	7440-28-0			mg/kg	2.16	U	2.15	U
Vanadium, Total	7440-62-2			mg/kg	22.5		20.4	
Zinc, Total	7440-66-6			mg/kg	52.7		90.6	

Table 2 - Summary of Analytical Results for Soil Samples -- 2019 and 2020
Green Line Extension Project - Washington Street
Somerville, Massachusetts

LOCATION						WASH-MH212(A)-DC-VOC-1		WASH-MH212(B)-DC-VOC-1		WASH-MH212(C)-DC-VOC-1		WASH-MH212(D)-DC-VOC-1	
SAMPLING DATE						7/17/2020		7/17/2020		7/17/2020		7/17/2020	
LAB SAMPLE ID						20G1126-01		20G1126-02		20G1126-03		20G1126-04	
SAMPLE TYPE						SOIL		SOIL		SOIL		SOIL	
	CasNum	S-1/GW-1	S-1/GW-2	S-1/GW-3	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual
MCP Volatile Organics by EPA 5035													
Methylene chloride	75-09-2	0.1	4	400	mg/kg	0.0082	U	0.0088	U	0.0077	U	0.0088	U
1,1-Dichloroethane	75-34-3	0.4	9	500	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
Chloroform	67-66-3	0.4	0.2	500	mg/kg	0.0033	U	0.0035	U	0.0031	U	0.0035	U
Carbon tetrachloride	56-23-5	10	5	30	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
1,2-Dichloropropane	78-87-5	0.1	0.1	30	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
Dibromochloromethane	124-48-1	0.005	0.03	20	mg/kg	0.00082	U	0.00088	U	0.00077	U	0.00088	U
1,1,2-Trichloroethane	79-00-5	0.1	2	40	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
Tetrachloroethene	127-18-4	1	10	30	mg/kg	0.0048	U	0.0036	U	0.0046	U	0.0046	U
Chlorobenzene	108-90-7	1	3	100	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
Trichlorofluoromethane	75-69-4				mg/kg	0.0082	U	0.0088	U	0.0077	U	0.0088	U
1,2-Dichloroethane	107-06-2	0.1	0.1	20	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
1,1,1-Trichloroethane	71-55-6	30	500	500	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
Bromodichloromethane	75-27-4	0.1	0.1	30	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
trans-1,3-Dichloropropene	10061-02-6	0.01(2)	0.4(2)	20(2)	mg/kg	0.00082	U	0.00088	U	0.00077	U	0.00088	U
cis-1,3-Dichloropropene	10061-01-5	0.01(2)	0.4(2)	20(2)	mg/kg	0.00082	U	0.00088	U	0.00077	U	0.00088	U
1,3-Dichloropropene, Total	542-75-6	0.01	0.4	20	mg/kg	-	-	-	-	-	-	-	-
1,1,1-Dichloropropene	563-58-6	0	0	0	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
Bromoform	75-25-2	0.1	1	300	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
1,1,2,2-Tetrachloroethane	79-34-5	0.005	0.02	10	mg/kg	0.00082	U	0.00088	U	0.00077	U	0.00088	U
Benzene	71-43-2	2	40	40	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
Toluene	108-88-3	30	500	500	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
Ethylbenzene	100-41-4	40	500	500	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
Chloromethane	74-87-3				mg/kg	0.0082	U	0.0088	U	0.0077	U	0.0088	U
Bromomethane	74-83-9	0.5	0.5	30	mg/kg	0.0082	U	0.0088	U	0.0077	U	0.0088	U
Vinyl chloride	75-01-4	0.9	0.7	1	mg/kg	0.0082	U	0.0088	U	0.0077	U	0.0088	U
Chloroethane	75-00-3				mg/kg	0.0082	U	0.0088	U	0.0077	U	0.0088	U
1,1-Dichloroethene	75-35-4	3	40	500	mg/kg	0.0033	U	0.0035	U	0.0031	U	0.0035	U
trans-1,2-Dichloroethene	156-60-5	1	1	500	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
Trichloroethene	79-01-6	0.3	0.3	30	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
1,2-Dichlorobenzene	95-50-1	9	100	300	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
1,3-Dichlorobenzene	541-73-1	3	100	100	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
1,4-Dichlorobenzene	106-46-7	0.7	1	80	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
Methyl tert butyl ether	1634-04-4	0.1	100	100	mg/kg	0.0033	U	0.0035	U	0.0031	U	0.0035	U
p/m-Xylene	179601-23-1	400(3)	100(3)	500(3)	mg/kg	0.0033	U	0.0035	U	0.0031	U	0.0035	U
o-Xylene	95-47-6	400(3)	100(3)	500(3)	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
Xylenes, Total	1330-20-7	400	100	500	mg/kg	0.0033	U	0.0035	U	0.0031	U	0.0035	U
cis-1,2-Dichloroethene	156-59-2	0.3	0.1	100	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
1,2-Dichloroethene, Total	540-59-0				mg/kg	-	-	-	-	-	-	-	-
Dibromomethane	74-95-3				mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
1,2,3-Trichloropropane	96-18-4				mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
Styrene	100-42-5	3	4	70	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
Dichlorodifluoromethane	75-71-8				mg/kg	0.0082	U	0.0088	U	0.0077	U	0.0088	U
Acetone	67-64-1	6	50	400	mg/kg	0.21	U	0.088	U	0.31	U	0.20	U
Carbon disulfide	75-15-0				mg/kg	0.0049	U	0.0053	U	0.0046	U	0.0053	U
Methyl ethyl ketone	78-93-3	4	50	400	mg/kg	0.033	U	0.035	U	0.031	U	0.035	U
Methyl isobutyl ketone	108-10-1	0.4	50	400	mg/kg	0.016	U	0.018	U	0.015	U	0.018	U
2-Hexanone	591-78-6				mg/kg	0.016	U	0.018	U	0.015	U	0.018	U
Bromochloromethane	74-97-5				mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
Tetrahydrofuran	109-99-9				mg/kg	0.0082	U	0.0088	U	0.0077	U	0.0088	U
2,2-Dichloropropane	594-20-7	0	0	0	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
1,2-Dibromoethane	106-93-4	0.1	0.1	1	mg/kg	0.00082	U	0.00088	U	0.00077	U	0.00088	U
1,3-Dichloropropane	142-28-9				mg/kg	0.00082	U	0.00088	U	0.00077	U	0.00088	U
1,1,1,2-Tetrachloroethane	630-20-6	0.1	0.1	80	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
Bromobenzene	108-86-1				mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
n-Butylbenzene	104-51-8	100(1)	100(1)	100(1)	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
sec-Butylbenzene	135-98-8	100(1)	100(1)	100(1)	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
tert-Butylbenzene	98-06-6	100(1)	100(1)	100(1)	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U

Table 2 - Summary of Analytical Results for Soil Samples -- 2019 and 2020
Green Line Extension Project - Washington Street
Somerville, Massachusetts

LOCATION						WASH-MH212(A)-DC-VOC-1	WASH-MH212(B)-DC-VOC-1	WASH-MH212(C)-DC-VOC-1	WASH-MH212(D)-DC-VOC-1				
SAMPLING DATE						7/17/2020	7/17/2020	7/17/2020	7/17/2020				
LAB SAMPLE ID						20G1126-01	20G1126-02	20G1126-03	20G1126-04				
SAMPLE TYPE						SOIL	SOIL	SOIL	SOIL				
	CasNum	S-1/GW-1	S-1/GW-2	S-1/GW-3	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual
o-Chlorotoluene	95-49-8				mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
p-Chlorotoluene	106-43-4				mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
1,2-Dibromo-3-chloropropane	96-12-8				mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
Hexachlorobutadiene	87-68-3	30	30	30	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
Isopropylbenzene	98-82-8	100(1)	100(1)	100(1)	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
p-Isopropyltoluene	99-87-6	100(1)	100(1)	100(1)	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
Naphthalene	91-20-3	4	20	500	mg/kg	0.0033	U	0.0035	U	0.0031	U	0.0035	U
n-Propylbenzene	103-65-1	100(1)	100(1)	100(1)	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
1,2,3-Trichlorobenzene	87-61-6				mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
1,2,4-Trichlorobenzene	120-82-1	2	6	700	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
1,3,5-Trimethylbenzene	108-67-8	100(1)	100(1)	100(1)	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
1,2,4-Trimethylbenzene	95-63-6	100(1)	100(1)	100(1)	mg/kg	0.0016	U	0.0018	U	0.0015	U	0.0018	U
Diethyl ether	60-29-7				mg/kg	0.0082	U	0.0088	U	0.0077	U	0.0088	U
Diisopropyl Ether	108-20-3				mg/kg	0.00082	U	0.00088	U	0.00077	U	0.00088	U
Ethyl-Tert-Butyl-Ether	637-92-3				mg/kg	0.00082	U	0.00088	U	0.00077	U	0.00088	U
Tertiary-Amyl Methyl Ether	994-05-8				mg/kg	0.00082	U	0.00088	U	0.00077	U	0.00088	U
1,4-Dioxane	123-91-1	0.2	6	20	mg/ka	0.082	U	0.088	U	0.077	U	0.088	U

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

U - Not detected at the reported detection limit for the sample.

- Not analyzed.

(1) - Value for C9-C10 aromatics used.

(2) -Value for 1,3-Dichloropropene used.

(3) - Criteria applicable to xylene (total), the sum of the xylene isomers.

Table 2 - Summary of Analytical Results for Soil Samples -- 2019 and 2020
Green Line Extension Project - Washington Street
Somerville, Massachusetts

LOCATION						WASH-MH212(E)-DC-VOC-1		WASH-MH212(F)-DC-VOC-1		WASH-MH212(G)-DC-VOC-1		Wash-MH186(A)-DC-VOC		Wash-MH186(B)-DC-VOC	
SAMPLING DATE						7/17/2020		7/17/2020		7/17/2020		8/7/2020		8/7/2020	
LAB SAMPLE ID						20G1126-05		20G1126-06		20G1126-07		20H0387-01		20H0387-02	
SAMPLE TYPE						SOIL		SOIL		SOIL		SOIL		SOIL	
	CasNum	S-1/GW-1	S-1/GW-2	S-1/GW-3	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
MCP Volatile Organics by EPA 5035															
Methylene chloride	75-09-2	0.1	4	400	mg/kg	0.007	U	0.0085	U	0.011	U	0.0083	U	0.01	
1,1-Dichloroethane	75-34-3	0.4	9	500	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
Chloroform	67-66-3	0.4	0.2	500	mg/kg	0.0028	U	0.0034	U	0.0044	U	0.0033	U	0.0041	
Carbon tetrachloride	56-23-5	10	5	30	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
1,2-Dichloropropane	78-87-5	0.1	0.1	30	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
Dibromochloromethane	124-48-1	0.005	0.03	20	mg/kg	0.0007	U	0.00085	U	0.0011	U	0.00083	U	0.001	
1,1,2-Trichloroethane	79-00-5	0.1	2	40	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
Tetrachloroethene	127-18-4	1	10	30	mg/kg	0.0043	U	0.0051	U	0.0022	U	0.0094	U	0.0087	
Chlorobenzene	108-90-7	1	3	100	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
Trichlorofluoromethane	75-69-4				mg/kg	0.007	U	0.0085	U	0.011	U	0.0083	U	0.01	
1,2-Dichloroethane	107-06-2	0.1	0.1	20	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
1,1,1-Trichloroethane	71-55-6	30	500	500	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
Bromodichloromethane	75-27-4	0.1	0.1	30	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
trans-1,3-Dichloropropene	10061-02-6	0.01(2)	0.4(2)	20(2)	mg/kg	0.0007	U	0.00085	U	0.0011	U	0.00083	U	0.001	
cis-1,3-Dichloropropene	10061-01-5	0.01(2)	0.4(2)	20(2)	mg/kg	0.0007	U	0.00085	U	0.0011	U	0.00083	U	0.001	
1,3-Dichloropropene, Total	542-75-6	0.01	0.4	20	mg/kg	-	-	-	-	-	-	-	-	-	-
1,1-Dichloropropene	563-58-6	0	0	0	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
Bromoform	75-25-2	0.1	1	300	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
1,1,2,2-Tetrachloroethane	79-34-5	0.005	0.02	10	mg/kg	0.0007	U	0.00085	U	0.0011	U	0.00083	U	0.001	
Benzene	71-43-2	2	40	40	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
Toluene	108-88-3	30	500	500	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
Ethylbenzene	100-41-4	40	500	500	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
Chloromethane	74-87-3				mg/kg	0.007	U	0.0085	U	0.011	U	0.0083	U	0.01	
Bromomethane	74-83-9	0.5	0.5	30	mg/kg	0.007	U	0.0085	U	0.011	U	0.0083	U	0.01	
Vinyl chloride	75-01-4	0.9	0.7	1	mg/kg	0.007	U	0.0085	U	0.011	U	0.0083	U	0.01	
Chloroethane	75-00-3				mg/kg	0.007	U	0.0085	U	0.011	U	0.0083	U	0.01	
1,1-Dichloroethene	75-35-4	3	40	500	mg/kg	0.0028	U	0.0034	U	0.0044	U	0.0033	U	0.0041	
trans-1,2-Dichloroethene	156-60-5	1	1	500	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
Trichloroethene	79-01-6	0.3	0.3	30	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0021	U	0.0021	
1,2-Dichlorobenzene	95-50-1	9	100	300	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
1,3-Dichlorobenzene	541-73-1	3	100	100	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
1,4-Dichlorobenzene	106-46-7	0.7	1	80	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
Methyl tert butyl ether	1634-04-4	0.1	100	100	mg/kg	0.0028	U	0.0034	U	0.0044	U	0.0033	U	0.0041	
p/m-Xylene	179601-23-1	400(3)	100(3)	500(3)	mg/kg	0.0028	U	0.0034	U	0.0044	U	0.0033	U	0.0041	
o-Xylene	95-47-6	400(3)	100(3)	500(3)	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
Xylenes, Total	1330-20-7	400	100	500	mg/kg	0.0028	U	0.0034	U	0.0044	U	0.0033	U	0.0041	
cis-1,2-Dichloroethene	156-59-2	0.3	0.1	100	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0044	U	0.0021	
1,2-Dichloroethene, Total	540-59-0				mg/kg	-	-	-	-	-	-	-	-	-	-
Dibromomethane	74-95-3				mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
1,2,3-Trichloropropane	96-18-4				mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
Styrene	100-42-5	3	4	70	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
Dichlorodifluoromethane	75-71-8				mg/kg	0.007	U	0.0085	U	0.011	U	0.0083	U	0.01	
Acetone	67-64-1	6	50	400	mg/kg	0.19		0.085	U	0.16		0.083	U	0.1	
Carbon disulfide	75-15-0				mg/kg	0.0042	U	0.0051	U	0.0066	U	0.005	U	0.0062	
Methyl ethyl ketone	78-93-3	4	50	400	mg/kg	0.028	U	0.034	U	0.044	U	0.033	U	0.041	
Methyl isobutyl ketone	108-10-1	0.4	50	400	mg/kg	0.014	U	0.017	U	0.022	U	0.017	U	0.021	
2-Hexanone	591-78-6				mg/kg	0.014	U	0.017	U	0.022	U	0.017	U	0.021	
Bromochloromethane	74-97-5				mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
Tetrahydrofuran	109-99-9				mg/kg	0.007	U	0.0085	U	0.011	U	0.0083	U	0.01	
2,2-Dichloropropane	594-20-7	0	0	0	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
1,2-Dibromoethane	106-93-4	0.1	0.1	1	mg/kg	0.0007	U	0.00085	U	0.0011	U	0.00083	U	0.001	
1,3-Dichloropropane	142-28-9				mg/kg	0.0007	U	0.00085	U	0.0011	U	0.00083	U	0.001	
1,1,1,2-Tetrachloroethane	630-20-6	0.1	0.1	80	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
Bromobenzene	108-86-1				mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
n-Butylbenzene	104-51-8	100(1)	100(1)	100(1)	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
sec-Butylbenzene	135-98-8	100(1)	100(1)	100(1)	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	
tert-Butylbenzene	98-06-6	100(1)	100(1)	100(1)	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	

Table 2 - Summary of Analytical Results for Soil Samples -- 2019 and 2020
Green Line Extension Project - Washington Street
Somerville, Massachusetts

LOCATION						WASH-MH212(E)-DC-VOC-1	WASH-MH212(F)-DC-VOC-1	WASH-MH212(G)-DC-VOC-1	Wash-MH186(A)-DC-VOC	Wash-MH186(B)-DC-VOC					
SAMPLING DATE						7/17/2020	7/17/2020	7/17/2020	8/7/2020	8/7/2020					
LAB SAMPLE ID						20G1126-05	20G1126-06	20G1126-07	20H0387-01	20H0387-02					
SAMPLE TYPE						SOIL	SOIL	SOIL	SOIL	SOIL					
	CasNum	S-1/GW-1	S-1/GW-2	S-1/GW-3	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
o-Chlorotoluene	95-49-8				mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	U
p-Chlorotoluene	106-43-4				mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	U
1,2-Dibromo-3-chloropropane	96-12-8				mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	U
Hexachlorobutadiene	87-68-3	30	30	30	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	U
isopropylbenzene	98-82-8	100(1)	100(1)	100(1)	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	U
p-Isopropyltoluene	99-87-6	100(1)	100(1)	100(1)	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	U
Naphthalene	91-20-3	4	20	500	mg/kg	0.0028	U	0.0034	U	0.0044	U	0.0033	U	0.0041	U
n-Propylbenzene	103-65-1	100(1)	100(1)	100(1)	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	U
1,2,3-Trichlorobenzene	87-61-6				mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	U
1,2,4-Trichlorobenzene	120-82-1	2	6	700	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	U
1,3,5-Trimethylbenzene	108-67-8	100(1)	100(1)	100(1)	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	U
1,2,4-Trimethylbenzene	95-63-6	100(1)	100(1)	100(1)	mg/kg	0.0014	U	0.0017	U	0.0022	U	0.0017	U	0.0021	U
Diethyl ether	60-29-7				mg/kg	0.007	U	0.0085	U	0.011	U	0.0083	U	0.01	U
Diisopropyl Ether	108-20-3				mg/kg	0.0007	U	0.00085	U	0.0011	U	0.00083	U	0.001	U
Ethyl-Tert-Butyl-Ether	637-92-3				mg/kg	0.0007	U	0.00085	U	0.0011	U	0.00083	U	0.001	U
Tertiary-Amyl Methyl Ether	994-05-8				mg/kg	0.0007	U	0.00085	U	0.0011	U	0.00083	U	0.001	U
1,4-Dioxane	123-91-1	0.2	6	20	mg/kg	0.07	U	0.085	U	0.11	U	0.083	U	0.1	U

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

U - Not detected at the reported detection limit for the sample.

- Not analyzed.

(1) - Value for C9-C10 aromatics used.

(2) -Value for 1,3-Dichloropropene used.

(3) - Criteria applicable to xylene (total), the sum of the xylene isomers.

Table 2 - Summary of Analytical Results for Soil Samples -- 2019 and 2020
Green Line Extension Project - Washington Street
Somerville, Massachusetts

LOCATION							Wash-MH186(C)-DC-VOC		WASH-MH119A-DC-VOC		WASH-MH119B-DC-VOC		WASH-MH119C-DC-VOC		WASH-MH281A-DC-VOC	
SAMPLING DATE							8/7/2020		8/18/2020		8/18/2020		8/18/2020		8/18/2020	
LAB SAMPLE ID							20H0387-03		L2033621-02		L2033621-03		L2033621-04		L2033621-06	
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL	
	CasNum	S-1/GW-1	S-1/GW-2	S-1/GW-3	Units	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
MCP Volatile Organics by EPA 5035																
Methylene chloride	75-09-2	0.1	4	400	mg/kg	U	0.011	U	0.0038	U	0.005	U	0.0042	U	0.0041	U
1,1-Dichloroethane	75-34-3	0.4	9	500	mg/kg	U	0.0023	U	0.00076	U	0.001	U	0.00083	U	0.00083	U
Chloroform	67-66-3	0.4	0.2	500	mg/kg	U	0.0046	U	0.0011	U	0.0015	U	0.0012	U	0.0012	U
Carbon tetrachloride	56-23-5	10	5	30	mg/kg	U	0.0023	U	0.00076	U	0.001	U	0.00083	U	0.00083	U
1,2-Dichloropropane	78-87-5	0.1	0.1	30	mg/kg	U	0.0023	U	0.00076	U	0.001	U	0.00083	U	0.00083	U
Dibromochloromethane	124-48-1	0.005	0.03	20	mg/kg	U	0.0011	U	0.00076	U	0.001	U	0.00083	U	0.00083	U
1,1,2-Trichloroethane	79-00-5	0.1	2	40	mg/kg	U	0.0023	U	0.00076	U	0.001	U	0.00083	U	0.00083	U
Tetrachloroethene	127-18-4	1	10	30	mg/kg	U	0.010	U	0.0038	U	0.0066	U	0.003	U	0.0018	U
Chlorobenzene	108-90-7	1	3	100	mg/kg	U	0.0023	U	0.00038	U	0.0005	U	0.00042	U	0.00041	U
Trichlorofluoromethane	75-69-4				mg/kg	U	0.011	U	0.003	U	0.004	U	0.0033	U	0.0033	U
1,2-Dichloroethane	107-06-2	0.1	0.1	20	mg/kg	U	0.0023	U	0.00076	U	0.001	U	0.00083	U	0.00083	U
1,1,1-Trichloroethane	71-55-6	30	500	500	mg/kg	U	0.0023	U	0.00038	U	0.0005	U	0.00042	U	0.00041	U
Bromodichloromethane	75-27-4	0.1	0.1	30	mg/kg	U	0.0023	U	0.00038	U	0.0005	U	0.00042	U	0.00041	U
trans-1,3-Dichloropropene	10061-02-6	0.01(2)	0.4(2)	20(2)	mg/kg	U	0.0011	U	0.00076	U	0.001	U	0.00083	U	0.00083	U
cis-1,3-Dichloropropene	10061-01-5	0.01(2)	0.4(2)	20(2)	mg/kg	U	0.0011	U	0.00038	U	0.0005	U	0.00042	U	0.00041	U
1,3-Dichloropropene, Total	542-75-6	0.01	0.4	20	mg/kg	-	-	-	0.00038	U	0.0005	U	0.00042	U	0.00041	U
1,1-Dichloropropene	563-58-6	0	0	0	mg/kg	U	0.0023	U	0.00038	U	0.0005	U	0.00042	U	0.00041	U
Bromoform	75-25-2	0.1	1	300	mg/kg	U	0.0023	U	0.003	U	0.004	U	0.0033	U	0.0033	U
1,1,2,2-Tetrachloroethane	79-34-5	0.005	0.02	10	mg/kg	U	0.0011	U	0.00038	U	0.0005	U	0.00042	U	0.00041	U
Benzene	71-43-2	2	40	40	mg/kg	U	0.0023	U	0.0007	U	0.0005	U	0.00045	U	0.00048	U
Toluene	108-88-3	30	500	500	mg/kg	U	0.0023	U	0.00076	U	0.001	U	0.00083	U	0.00083	U
Ethylbenzene	100-41-4	40	500	500	mg/kg	U	0.0023	U	0.00076	U	0.001	U	0.00083	U	0.00083	U
Chloromethane	74-87-3				mg/kg	U	0.011	U	0.003	U	0.004	U	0.0033	U	0.0033	U
Bromomethane	74-83-9	0.5	0.5	30	mg/kg	U	0.011	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
Vinyl chloride	75-01-4	0.9	0.7	1	mg/kg	U	0.011	U	0.00076	U	0.001	U	0.00083	U	0.00083	U
Chloroethane	75-00-3				mg/kg	U	0.011	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
1,1-Dichloroethene	75-35-4	3	40	500	mg/kg	U	0.0046	U	0.00076	U	0.001	U	0.00083	U	0.00083	U
trans-1,2-Dichloroethene	156-60-5	1	1	500	mg/kg	U	0.0023	U	0.0011	U	0.0015	U	0.0012	U	0.0012	U
Trichloroethene	79-01-6	0.3	0.3	30	mg/kg	U	0.0023	U	0.00062	U	0.00078	U	0.00042	U	0.00041	U
1,2-Dichlorobenzene	95-50-1	9	100	300	mg/kg	U	0.0023	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
1,3-Dichlorobenzene	541-73-1	3	100	100	mg/kg	U	0.0023	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
1,4-Dichlorobenzene	106-46-7	0.7	1	80	mg/kg	U	0.0023	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
Methyl tert butyl ether	1634-04-4	0.1	100	100	mg/kg	U	0.0046	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
p/m-Xylene	179601-23-1	400(3)	100(3)	500(3)	mg/kg	U	0.0046	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
o-Xylene	95-47-6	400(3)	100(3)	500(3)	mg/kg	U	0.0023	U	0.00076	U	0.001	U	0.00083	U	0.00083	U
Xylenes, Total	1330-20-7	400	100	500	mg/kg	U	0.0046	U	0.00076	U	0.001	U	0.00083	U	0.00083	U
cis-1,2-Dichloroethene	156-59-2	0.3	0.1	100	mg/kg	U	0.0023	U	0.00077	U	0.001	U	0.00083	U	0.00083	U
1,2-Dichloroethene, Total	540-59-0				mg/kg	-	-	-	0.00077	U	0.001	U	0.00083	U	0.00083	U
Dibromomethane	74-95-3				mg/kg	U	0.0023	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
1,2,3-Trichloropropane	96-18-4				mg/kg	U	0.0023	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
Styrene	100-42-5	3	4	70	mg/kg	U	0.0023	U	0.00076	U	0.001	U	0.00083	U	0.00083	U
Dichlorodifluoromethane	75-71-8				mg/kg	U	0.011	U	0.0076	U	0.01	U	0.0083	U	0.0083	U
Acetone	67-64-1	6	50	400	mg/kg	U	0.11	U	0.028	U	0.025	U	0.026	U	0.028	U
Carbon disulfide	75-15-0				mg/kg	U	0.0069	U	0.0076	U	0.01	U	0.0083	U	0.0083	U
Methyl ethyl ketone	78-93-3	4	50	400	mg/kg	U	0.046	U	0.0076	U	0.01	U	0.0083	U	0.0083	U
Methyl isobutyl ketone	108-10-1	0.4	50	400	mg/kg	U	0.023	U	0.0076	U	0.01	U	0.0083	U	0.0083	U
2-Hexanone	591-78-6				mg/kg	U	0.023	U	0.0076	U	0.01	U	0.0083	U	0.0083	U
Bromochloromethane	74-97-5				mg/kg	U	0.0023	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
Tetrahydrofuran	109-99-9				mg/kg	U	0.011	U	0.003	U	0.004	U	0.0033	U	0.0033	U
2,2-Dichloropropane	594-20-7	0	0	0	mg/kg	U	0.0023	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
1,2-Dibromoethane	106-93-4	0.1	0.1	1	mg/kg	U	0.0011	U	0.00076	U	0.001	U	0.00083	U	0.00083	U
1,3-Dichloropropane	142-28-9				mg/kg	U	0.0011	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
1,1,1,2-Tetrachloroethane	630-20-6	0.1	0.1	80	mg/kg	U	0.0023	U	0.00038	U	0.0005	U	0.00042	U	0.00041	U
Bromobenzene	108-86-1				mg/kg	U	0.0023	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
n-Butylbenzene	104-51-8	100(1)	100(1)	100(1)	mg/kg	U	0.0023	U	0.00076	U	0.001	U	0.00083	U	0.00083	U
sec-Butylbenzene	135-98-8	100(1)	100(1)	100(1)	mg/kg	U	0.0023	U	0.00076	U	0.001	U	0.00083	U	0.00083	U
tert-Butylbenzene	98-06-6	100(1)	100(1)	100(1)	mg/kg	U	0.0023	U	0.0015	U	0.002	U	0.0017	U	0.0016	U

Table 2 - Summary of Analytical Results for Soil Samples -- 2019 and 2020
Green Line Extension Project - Washington Street
Somerville, Massachusetts

LOCATION							Wash-MH186(C)-DC-VOC		WASH-MH119A-DC-VOC		WASH-MH119B-DC-VOC		WASH-MH119C-DC-VOC		WASH-MH281A-DC-VOC	
SAMPLING DATE							8/7/2020		8/18/2020		8/18/2020		8/18/2020		8/18/2020	
LAB SAMPLE ID							20H0387-03		L2033621-02		L2033621-03		L2033621-04		L2033621-06	
SAMPLE TYPE							SOIL		SOIL		SOIL		SOIL		SOIL	
	CasNum	S-1/GW-1	S-1/GW-2	S-1/GW-3	Units	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
o-Chlorotoluene	95-49-8				mg/kg	U	0.0023	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
p-Chlorotoluene	106-43-4				mg/kg	U	0.0023	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
1,2-Dibromo-3-chloropropane	96-12-8				mg/kg	U	0.0023	U	0.0023	U	0.003	U	0.0025	U	0.0025	U
Hexachlorobutadiene	87-68-3	30	30	30	mg/kg	U	0.0023	U	0.003	U	0.004	U	0.0033	U	0.0033	U
Isopropylbenzene	98-82-8	100(1)	100(1)	100(1)	mg/kg	U	0.0023	U	0.00076	U	0.001	U	0.00083	U	0.00083	U
p-Isopropyltoluene	99-87-6	100(1)	100(1)	100(1)	mg/kg	U	0.0023	U	0.00076	U	0.001	U	0.00083	U	0.00083	U
Naphthalene	91-20-3	4	20	500	mg/kg	U	0.0046	U	0.003	U	0.004	U	0.0033	U	0.0033	U
n-Propylbenzene	103-65-1	100(1)	100(1)	100(1)	mg/kg	U	0.0023	U	0.00076	U	0.001	U	0.00083	U	0.00083	U
1,2,3-Trichlorobenzene	87-61-6				mg/kg	U	0.0023	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
1,2,4-Trichlorobenzene	120-82-1	2	6	700	mg/kg	U	0.0023	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
1,3,5-Trimethylbenzene	108-67-8	100(1)	100(1)	100(1)	mg/kg	U	0.0023	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
1,2,4-Trimethylbenzene	95-63-6	100(1)	100(1)	100(1)	mg/kg	U	0.0023	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
Diethyl ether	60-29-7				mg/kg	U	0.011	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
Diisopropyl Ether	108-20-3				mg/kg	U	0.0011	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
Ethyl-Tert-Butyl-Ether	637-92-3				mg/kg	U	0.0011	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
Tertiary-Amyl Methyl Ether	994-05-8				mg/kg	U	0.0011	U	0.0015	U	0.002	U	0.0017	U	0.0016	U
1,4-Dioxane	123-91-1	0.2	6	20	mg/kg	U	0.11	U	0.061	U	0.08	U	0.067	U	0.066	U

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

U - Not detected at the reported detection limit for the sample.

- Not analyzed.

(1) - Value for C9-C10 aromatics used.

(2) - Value for 1,3-Dichloropropene used.

(3) - Criteria applicable to xylene (total), the sum of the xylene isomers.

Table 2 - Summary of Analytical Results for Soil Samples -- 2019 and 2020
Green Line Extension Project - Washington Street
Somerville, Massachusetts

LOCATION						WASH-MH281B-DC-VOC		WASH-MH281C-DC-VOC		WASH-MH281D-DC-VOC	
SAMPLING DATE						8/18/2020		8/18/2020		8/18/2020	
LAB SAMPLE ID						L2033621-07		L2033621-08		L2033621-09	
SAMPLE TYPE						SOIL		SOIL		SOIL	
	CasNum	S-1/GW-1	S-1/GW-2	S-1/GW-3	Units	Results	Qual	Results	Qual	Results	Qual
MCP Volatile Organics by EPA 5035											
Methylene chloride	75-09-2	0.1	4	400	mg/kg	0.0044	U	0.0038	U	0.0041	U
1,1-Dichloroethane	75-34-3	0.4	9	500	mg/kg	0.00089	U	0.00077	U	0.00083	U
Chloroform	67-66-3	0.4	0.2	500	mg/kg	0.0013	U	0.0012	U	0.0012	U
Carbon tetrachloride	56-23-5	10	5	30	mg/kg	0.00089	U	0.00077	U	0.00083	U
1,2-Dichloropropane	78-87-5	0.1	0.1	30	mg/kg	0.00089	U	0.00077	U	0.00083	U
Dibromochloromethane	124-48-1	0.005	0.03	20	mg/kg	0.00089	U	0.00077	U	0.00083	U
1,1,2-Trichloroethane	79-00-5	0.1	2	40	mg/kg	0.00089	U	0.00077	U	0.00083	U
Tetrachloroethene	127-18-4	1	10	30	mg/kg	0.0013	U	0.0013	U	0.0014	U
Chlorobenzene	108-90-7	1	3	100	mg/kg	0.00044	U	0.00038	U	0.00041	U
Trichlorofluoromethane	75-69-4				mg/kg	0.0036	U	0.0031	U	0.0033	U
1,2-Dichloroethane	107-06-2	0.1	0.1	20	mg/kg	0.00089	U	0.00077	U	0.00083	U
1,1,1-Trichloroethane	71-55-6	30	500	500	mg/kg	0.00044	U	0.00038	U	0.00041	U
Bromodichloromethane	75-27-4	0.1	0.1	30	mg/kg	0.00044	U	0.00038	U	0.00041	U
trans-1,3-Dichloropropene	10061-02-6	0.01(2)	0.4(2)	20(2)	mg/kg	0.00089	U	0.00077	U	0.00083	U
cis-1,3-Dichloropropene	10061-01-5	0.01(2)	0.4(2)	20(2)	mg/kg	0.00044	U	0.00038	U	0.00041	U
1,3-Dichloropropene, Total	542-75-6	0.01	0.4	20	mg/kg	0.00044	U	0.00038	U	0.00041	U
1,1-Dichloropropene	563-58-6	0	0	0	mg/kg	0.00044	U	0.00038	U	0.00041	U
Bromoform	75-25-2	0.1	1	300	mg/kg	0.0036	U	0.0031	U	0.0033	U
1,1,2,2-Tetrachloroethane	79-34-5	0.005	0.02	10	mg/kg	0.00044	U	0.00038	U	0.00041	U
Benzene	71-43-2	2	40	40	mg/kg	0.00066	U	0.00068	U	0.00054	U
Toluene	108-88-3	30	500	500	mg/kg	0.00089	U	0.00077	U	0.00083	U
Ethylbenzene	100-41-4	40	500	500	mg/kg	0.00089	U	0.00077	U	0.00083	U
Chloromethane	74-87-3				mg/kg	0.0036	U	0.0031	U	0.0033	U
Bromomethane	74-83-9	0.5	0.5	30	mg/kg	0.0018	U	0.0015	U	0.0016	U
Vinyl chloride	75-01-4	0.9	0.7	1	mg/kg	0.00089	U	0.00077	U	0.00083	U
Chloroethane	75-00-3				mg/kg	0.0018	U	0.0015	U	0.0016	U
1,1-Dichloroethene	75-35-4	3	40	500	mg/kg	0.00089	U	0.00077	U	0.00083	U
trans-1,2-Dichloroethene	156-60-5	1	1	500	mg/kg	0.0013	U	0.0012	U	0.0012	U
Trichloroethene	79-01-6	0.3	0.3	30	mg/kg	0.00044	U	0.00038	U	0.00046	U
1,2-Dichlorobenzene	95-50-1	9	100	300	mg/kg	0.0018	U	0.0015	U	0.0016	U
1,3-Dichlorobenzene	541-73-1	3	100	100	mg/kg	0.0018	U	0.0015	U	0.0016	U
1,4-Dichlorobenzene	106-46-7	0.7	1	80	mg/kg	0.0018	U	0.0015	U	0.0016	U
Methyl tert butyl ether	1634-04-4	0.1	100	100	mg/kg	0.0018	U	0.0015	U	0.0016	U
p/m-Xylene	179601-23-1	400(3)	100(3)	500(3)	mg/kg	0.0018	U	0.0015	U	0.0016	U
o-Xylene	95-47-6	400(3)	100(3)	500(3)	mg/kg	0.00089	U	0.00077	U	0.00083	U
Xylenes, Total	1330-20-7	400	100	500	mg/kg	0.00089	U	0.00077	U	0.00083	U
cis-1,2-Dichloroethene	156-59-2	0.3	0.1	100	mg/kg	0.00089	U	0.00077	U	0.00083	U
1,2-Dichloroethene, Total	540-59-0				mg/kg	0.00089	U	0.00077	U	0.00083	U
Dibromomethane	74-95-3				mg/kg	0.0018	U	0.0015	U	0.0016	U
1,2,3-Trichloropropane	96-18-4				mg/kg	0.0018	U	0.0015	U	0.0016	U
Styrene	100-42-5	3	4	70	mg/kg	0.00089	U	0.00077	U	0.00083	U
Dichlorodifluoromethane	75-71-8				mg/kg	0.0089	U	0.0077	U	0.0083	U
Acetone	67-64-1	6	50	400	mg/kg	0.037	U	0.032	U	0.036	U
Carbon disulfide	75-15-0				mg/kg	0.0089	U	0.0077	U	0.0083	U
Methyl ethyl ketone	78-93-3	4	50	400	mg/kg	0.0089	U	0.0077	U	0.0083	U
Methyl isobutyl ketone	108-10-1	0.4	50	400	mg/kg	0.0089	U	0.0077	U	0.0083	U
2-Hexanone	591-78-6				mg/kg	0.0089	U	0.0077	U	0.0083	U
Bromochloromethane	74-97-5				mg/kg	0.0018	U	0.0015	U	0.0016	U
Tetrahydrofuran	109-99-9				mg/kg	0.0036	U	0.0031	U	0.0033	U
2,2-Dichloropropane	594-20-7	0	0	0	mg/kg	0.0018	U	0.0015	U	0.0016	U
1,2-Dibromoethane	106-93-4	0.1	0.1	1	mg/kg	0.00089	U	0.00077	U	0.00083	U
1,3-Dichloropropane	142-28-9				mg/kg	0.0018	U	0.0015	U	0.0016	U
1,1,1,2-Tetrachloroethane	630-20-6	0.1	0.1	80	mg/kg	0.00044	U	0.00038	U	0.00041	U
Bromobenzene	108-86-1				mg/kg	0.0018	U	0.0015	U	0.0016	U
n-Butylbenzene	104-51-8	100(1)	100(1)	100(1)	mg/kg	0.00089	U	0.00077	U	0.00083	U
sec-Butylbenzene	135-98-8	100(1)	100(1)	100(1)	mg/kg	0.00089	U	0.00077	U	0.00083	U
tert-Butylbenzene	98-06-6	100(1)	100(1)	100(1)	mg/kg	0.0018	U	0.0015	U	0.0016	U

Table 2 - Summary of Analytical Results for Soil Samples -- 2019 and 2020
Green Line Extension Project - Washington Street
Somerville, Massachusetts

LOCATION							WASH-MH281B-DC-VOC		WASH-MH281C-DC-VOC		WASH-MH281D-DC-VOC	
SAMPLING DATE							8/18/2020		8/18/2020		8/18/2020	
LAB SAMPLE ID							L2033621-07		L2033621-08		L2033621-09	
SAMPLE TYPE							SOIL		SOIL		SOIL	
	CasNum	S-1/GW-1	S-1/GW-2	S-1/GW-3	Units		Results	Qual	Results	Qual	Results	Qual
o-Chlorotoluene	95-49-8				mg/kg		0.0018	U	0.0015	U	0.0016	U
p-Chlorotoluene	106-43-4				mg/kg		0.0018	U	0.0015	U	0.0016	U
1,2-Dibromo-3-chloropropane	96-12-8				mg/kg		0.0027	U	0.0023	U	0.0025	U
Hexachlorobutadiene	87-68-3	30	30	30	mg/kg		0.0036	U	0.0031	U	0.0033	U
Isopropylbenzene	98-82-8	100(1)	100(1)	100(1)	mg/kg		0.00089	U	0.00077	U	0.00083	U
p-Isopropyltoluene	99-87-6	100(1)	100(1)	100(1)	mg/kg		0.00089	U	0.00077	U	0.00083	U
Naphthalene	91-20-3	4	20	500	mg/kg		0.0036	U	0.0031	U	0.0033	U
n-Propylbenzene	103-65-1	100(1)	100(1)	100(1)	mg/kg		0.00089	U	0.00077	U	0.00083	U
1,2,3-Trichlorobenzene	87-61-6				mg/kg		0.0018	U	0.0015	U	0.0016	U
1,2,4-Trichlorobenzene	120-82-1	2	6	700	mg/kg		0.0018	U	0.0015	U	0.0016	U
1,3,5-Trimethylbenzene	108-67-8	100(1)	100(1)	100(1)	mg/kg		0.0018	U	0.0015	U	0.0016	U
1,2,4-Trimethylbenzene	95-63-6	100(1)	100(1)	100(1)	mg/kg		0.0018	U	0.0015	U	0.0016	U
Diethyl ether	60-29-7				mg/kg		0.0018	U	0.0015	U	0.0016	U
Diisopropyl Ether	108-20-3				mg/kg		0.0018	U	0.0015	U	0.0016	U
Ethyl-Tert-Butyl-Ether	637-92-3				mg/kg		0.0018	U	0.0015	U	0.0016	U
Tertiary-Amyl Methyl Ether	994-05-8				mg/kg		0.0018	U	0.0015	U	0.0016	U
1,4-Dioxane	123-91-1	0.2	6	20	mg/kg		0.071	U	0.062	U	0.066	U

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

U - Not detected at the reported detection limit for the sample.

- Not analyzed.

(1) - Value for C9-C10 aromatics used.

(2) -Value for 1,3-Dichloropropene used.

(3) - Criteria applicable to xylene (total), the sum of the xylene isomers.

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-311B-21-DC				GLC-301B-07-DC			
						GLC-311B-21-DC-COMP		GLC-311B-21-DC-VOC-2		GLC-301B-07-DC-COMP		GLC-301B-07-DC-VOC-3	
						L2049316-03		L2049316-04		L2049316-05		L2049316-06	
						11/9/2020		11/9/2020		11/9/2020		11/9/2020	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
VOCs													
	Methylene chloride	mg/kg	0.1	NS	NS	NA		0.0041	U	NA		0.0049	U
	1,1-Dichloroethane	mg/kg	0.4	NS	NS	NA		0.00083	U	NA		0.00099	U
	Chloroform	mg/kg	0.2	NS	NS	NA		0.0012	U	NA		0.0015	U
	Carbon tetrachloride	mg/kg	5	NS	NS	NA		0.00083	U	NA		0.00099	U
	1,2-Dichloropropane	mg/kg	0.1	NS	NS	NA		0.00083	U	NA		0.00099	U
	Dibromochloromethane	mg/kg	0.005	NS	NS	NA		0.00083	U	NA		0.00099	U
	1,1,2-Trichloroethane	mg/kg	0.1	NS	NS	NA		0.00083	U	NA		0.00099	U
	Tetrachloroethene	mg/kg	1	NS	NS	NA		0.00061		NA		0.00056	
	Chlorobenzene	mg/kg	1	NS	NS	NA		0.00041	U	NA		0.00049	U
	Trichlorofluoromethane	mg/kg	1,000	NS	NS	NA		0.0033	U	NA		0.004	U
	1,2-Dichloroethane	mg/kg	0.1	NS	NS	NA		0.00083	U	NA		0.00099	U
	1,1,1-Trichloroethane	mg/kg	30	NS	NS	NA		0.00041	U	NA		0.00049	U
	Bromodichloromethane	mg/kg	0.1	NS	NS	NA		0.00041	U	NA		0.00049	U
	trans-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.00083	U	NA		0.00099	U
	cis-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.00041	U	NA		0.00049	U
	1,3-Dichloropropene, Total	mg/kg	0.01	NS	NS	NA		0.00041	U	NA		0.00049	U
	1,1-Dichloropropene	mg/kg	0.01(4)	NS	NS	NA		0.00041	U	NA		0.00049	U
	Bromoform	mg/kg	0.1	NS	NS	NA		0.0033	U	NA		0.004	U
	1,1,2,2-Tetrachloroethane	mg/kg	0.005	NS	NS	NA		0.00041	U	NA		0.00049	U
	Benzene	mg/kg	2	NS	NS	NA		0.00041	U	NA		0.00049	U
	Toluene	mg/kg	30	NS	NS	NA		0.00083	U	NA		0.00099	U
	Ethylbenzene	mg/kg	40	NS	NS	NA		0.00083	U	NA		0.00099	U
	Chloromethane	mg/kg	100	NS	NS	NA		0.0033	U	NA		0.004	U
	Bromomethane	mg/kg	0.5	NS	NS	NA		0.0016	U	NA		0.002	U
	Vinyl chloride	mg/kg	0.7	NS	NS	NA		0.00083	U	NA		0.00099	U
	Chloroethane	mg/kg	100	NS	NS	NA		0.0016	U	NA		0.002	U
	1,1-Dichloroethene	mg/kg	3	NS	NS	NA		0.00083	U	NA		0.00099	U
	trans-1,2-Dichloroethene	mg/kg	1	NS	NS	NA		0.0012	U	NA		0.0015	U
	Trichloroethene	mg/kg	0.3	NS	NS	NA		0.00041	U	NA		0.00049	U
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	NA		0.0016	U	NA		0.002	U
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	NA		0.0016	U	NA		0.002	U
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	NA		0.0016	U	NA		0.002	U
	Methyl tert butyl ether	mg/kg	0.1	NS	NS	NA		0.0016	U	NA		0.002	U
	p/m-Xylene	mg/kg	100(2)	NS	NS	NA		0.0016	U	NA		0.002	U
	o-Xylene	mg/kg	100(2)	NS	NS	NA		0.00083	U	NA		0.00099	U
	Xylenes, Total	mg/kg	100	NS	NS	NA		0.00083	U	NA		0.00099	U
	cis-1,2-Dichloroethene	mg/kg	0.1	NS	NS	NA		0.00083	U	NA		0.00099	U
	1,2-Dichloroethene, Total	mg/kg	0.3	NS	NS	NA		0.00083	U	NA		0.00099	U
	Dibromomethane	mg/kg	500	NS	NS	NA		0.0016	U	NA		0.002	U
	1,2,3-Trichloropropane	mg/kg	100	NS	NS	NA		0.0016	U	NA		0.002	U
	Styrene	mg/kg	3	NS	NS	NA		0.00083	U	NA		0.00099	U
	Dichlorodifluoromethane	mg/kg	1,000	NS	NS	NA		0.0083	U	NA		0.0099	U
	Acetone	mg/kg	6	NS	NS	NA		0.021	U	NA		0.025	U
	Carbon disulfide	mg/kg	100	NS	NS	NA		0.0083	U	NA		0.0099	U
	Methyl ethyl ketone	mg/kg	4	NS	NS	NA		0.0083	U	NA		0.0099	U
	Methyl isobutyl ketone	mg/kg	0.4	NS	NS	NA		0.0083	U	NA		0.0099	U
	2-Hexanone	mg/kg	100	NS	NS	NA		0.0083	U	NA		0.0099	U
	Bromochloromethane	mg/kg	NS	NS	NS	NA		0.0016	U	NA		0.002	U
	Tetrahydrofuran	mg/kg	500	NS	NS	NA		0.0033	U	NA		0.004	U
	2,2-Dichloropropane	mg/kg	0.1(3)	NS	NS	NA		0.0016	U	NA		0.002	U
	1,2-Dibromoethane	mg/kg	0.1	NS	NS	NA		0.00083	U	NA		0.00099	U
	1,3-Dichloropropane	mg/kg	500	NS	NS	NA		0.0016	U	NA		0.002	U
	1,1,1,2-Tetrachloroethane	mg/kg	0.1	NS	NS	NA		0.00041	U	NA		0.00049	U
	Bromobenzene	mg/kg	100	NS	NS	NA		0.0016	U	NA		0.002	U
	n-Butylbenzene	mg/kg	100(1)	NS	NS	NA		0.00083	U	NA		0.00099	U
	sec-Butylbenzene	mg/kg	100(1)	NS	NS	NA		0.00083	U	NA		0.00099	U
	tert-Butylbenzene	mg/kg	100	NS	NS	NA		0.0016	U	NA		0.002	U
	o-Chlorotoluene	mg/kg	100	NS	NS	NA		0.0016	U	NA		0.002	U
	p-Chlorotoluene	mg/kg	100(5)	NS	NS	NA		0.0016	U	NA		0.002	U

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-311B-21-DC				GLC-301B-07-DC			
						GLC-311B-21-DC-COMP		GLC-311B-21-DC-VOC-2		GLC-301B-07-DC-COMP		GLC-301B-07-DC-VOC-3	
						L2049316-03		L2049316-04		L2049316-05		L2049316-06	
						11/9/2020		11/9/2020		11/9/2020		11/9/2020	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
	1,2-Dibromo-3-chloropropane	mg/kg	10	NS	NS	NA		0.0025	U	NA		0.003	U
	Hexachlorobutadiene	mg/kg	30	NS	NS	NA		0.0033	U	NA		0.004	U
	Isopropylbenzene	mg/kg	1,000	NS	NS	NA		0.00083	U	NA		0.00099	U
	p-Isopropyltoluene	mg/kg	100	NS	NS	NA		0.00083	U	NA		0.00099	U
	Naphthalene	mg/kg	4	NS	NS	NA		0.0033	U	NA		0.004	U
	n-Propylbenzene	mg/kg	100	NS	NS	NA		0.00083	U	NA		0.00099	U
	1,2,3-Trichlorobenzene	mg/kg	NS	NS	NS	NA		0.0016	U	NA		0.002	U
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	NA		0.0016	U	NA		0.002	U
	1,3,5-Trimethylbenzene	mg/kg	10	NS	NS	NA		0.0016	U	NA		0.002	U
	1,2,4-Trimethylbenzene	mg/kg	1,000	NS	NS	NA		0.0016	U	NA		0.002	U
	Diethyl ether	mg/kg	100	NS	NS	NA		0.0016	U	NA		0.002	U
	Diisopropyl Ether	mg/kg	100	NS	NS	NA		0.0016	U	NA		0.002	U
	Ethyl-Tert-Butyl-Ether	mg/kg	NS	NS	NS	NA		0.0016	U	NA		0.002	U
	Tertiary-Amyl Methyl Ether	mg/kg	NS	NS	NS	NA		0.0016	U	NA		0.002	U
	1,4-Dioxane	mg/kg	0.2	NS	NS	NA		0.066	U	NA		0.079	U
	Total VOCs	mg/kg	NS	4	10	NA		0.00061		NA		0.00056	
SVOCs													
	Acenaphthene	mg/kg	4	NS	NS	0.15	U	NA		0.14	U	NA	
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	0.19	U	NA		0.18	U	NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.08	U	NA		0.074	U	NA	
	Bis(2-chloroethyl)ether	mg/kg	0.7	NS	NS	0.08	U	NA		0.074	U	NA	
	2-Chloronaphthalene	mg/kg	1,000	NS	NS	0.19	U	NA		0.18	U	NA	
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	0.19	U	NA		0.18	U	NA	
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	0.19	U	NA		0.18	U	NA	
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	0.08	U	NA		0.074	U	NA	
	3,3'-Dichlorobenzidine	mg/kg	3	NS	NS	0.19	U	NA		0.18	U	NA	
	2,4-Dinitrotoluene	mg/kg	0.7	NS	NS	0.08	U	NA		0.074	U	NA	
	2,6-Dinitrotoluene	mg/kg	100	NS	NS	0.19	U	NA		0.18	U	NA	
	Azobenzene	mg/kg	50	NS	NS	0.19	U	NA		0.18	U	NA	
	Fluoranthene	mg/kg	1,000	NS	NS	2.3		NA		0.58		NA	
	4-Bromophenyl phenyl ether	mg/kg	100	NS	NS	0.19	U	NA		0.18	U	NA	
	Bis(2-chloroisopropyl)ether	mg/kg	0.7	NS	NS	0.08	U	NA		0.074	U	NA	
	Bis(2-chloroethoxy)methane	mg/kg	500	NS	NS	0.21	U	NA		0.19	U	NA	
	Hexachlorobutadiene	mg/kg	30	NS	NS	0.19	U	NA		0.18	U	NA	
	Hexachloroethane	mg/kg	0.7	NS	NS	0.08	U	NA		0.074	U	NA	
	Isophorone	mg/kg	100	NS	NS	0.17	U	NA		0.16	U	NA	
	Naphthalene	mg/kg	4	NS	NS	0.31		NA		0.18	U	NA	
	Nitrobenzene	mg/kg	500	NS	NS	0.17	U	NA		0.16	U	NA	
	Bis(2-ethylhexyl)phthalate	mg/kg	90	NS	NS	0.19	U	NA		0.18	U	NA	
	Butyl benzyl phthalate	mg/kg	100	NS	NS	0.19	U	NA		0.18	U	NA	
	Di-n-butylphthalate	mg/kg	50	NS	NS	0.19	U	NA		0.18	U	NA	
	Di-n-octylphthalate	mg/kg	1,000	NS	NS	0.19	U	NA		0.18	U	NA	
	Diethyl phthalate	mg/kg	10	NS	NS	0.19	U	NA		0.18	U	NA	
	Dimethyl phthalate	mg/kg	0.7	NS	NS	0.08	U	NA		0.074	U	NA	
	Benzo(a)anthracene	mg/kg	7	NS	NS	1		NA		0.28		NA	
	Benzo(a)pyrene	mg/kg	2	NS	NS	0.86		NA		0.25		NA	
	Benzo(b)fluoranthene	mg/kg	7	NS	NS	1.1		NA		0.32		NA	
	Benzo(k)fluoranthene	mg/kg	70	NS	NS	0.3		NA		0.1	U	NA	
	Chrysene	mg/kg	70	NS	NS	0.99		NA		0.26		NA	
	Acenaphthylene	mg/kg	1	NS	NS	0.15	U	NA		0.14	U	NA	
	Anthracene	mg/kg	1,000	NS	NS	0.45		NA		0.1		NA	
	Benzo(ghi)perylene	mg/kg	1,000	NS	NS	0.46		NA		0.14		NA	
	Fluorene	mg/kg	1,000	NS	NS	0.19	U	NA		0.18	U	NA	
	Phenanthrene	mg/kg	10	NS	NS	1.7		NA		0.4		NA	
	Dibenzo(a,h)anthracene	mg/kg	0.7	NS	NS	0.13		NA		0.074	U	NA	
	Indeno(1,2,3-cd)pyrene	mg/kg	7	NS	NS	0.54		NA		0.17		NA	
	Pyrene	mg/kg	1,000	NS	NS	2		NA		0.52		NA	
	Aniline	mg/kg	1,000	NS	NS	0.23	U	NA		0.21	U	NA	
	4-Chloroaniline	mg/kg	1	NS	NS	0.19	U	NA		0.18	U	NA	
	Dibenzofuran	mg/kg	100	NS	NS	0.2		NA		0.18	U	NA	
	2-Methylnaphthalene	mg/kg	0.7	NS	NS	0.26		NA		0.074	U	NA	

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-311B-21-DC				GLC-301B-07-DC			
						GLC-311B-21-DC-COMP		GLC-311B-21-DC-VOC-2		GLC-301B-07-DC-COMP		GLC-301B-07-DC-VOC-3	
						L2049316-03		L2049316-04		L2049316-05		L2049316-06	
						11/9/2020		11/9/2020		11/9/2020		11/9/2020	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
	Acetophenone	mg/kg	1,000	NS	NS	0.19	U	NA		0.18	U	NA	
	2,4,6-Trichlorophenol	mg/kg	0.7	NS	NS	0.08	U	NA		0.074	U	NA	
	2-Chlorophenol	mg/kg	0.7	NS	NS	0.08	U	NA		0.074	U	NA	
	2,4-Dichlorophenol	mg/kg	0.7	NS	NS	0.08	U	NA		0.074	U	NA	
	2,4-Dimethylphenol	mg/kg	0.7	NS	NS	0.08	U	NA		0.074	U	NA	
	2-Nitrophenol	mg/kg	100	NS	NS	0.41	U	NA		0.38	U	NA	
	4-Nitrophenol	mg/kg	100	NS	NS	0.27	U	NA		0.25	U	NA	
	2,4-Dinitrophenol	mg/kg	3	NS	NS	0.92	U	NA		0.85	U	NA	
	Pentachlorophenol	mg/kg	3	NS	NS	0.38	U	NA		0.35	U	NA	
	Phenol	mg/kg	1	NS	NS	0.19	U	NA		0.18	U	NA	
	2-Methylphenol	mg/kg	500	NS	NS	0.19	U	NA		0.18	U	NA	
	3-Methylphenol/4-Methylphenol	mg/kg	500	NS	NS	0.28	U	NA		0.25	U	NA	
	2,4,5-Trichlorophenol	mg/kg	4	NS	NS	0.19	U	NA		0.18	U	NA	
	Pyridine	mg/kg	500	NS	NS	0.21	U	NA		0.19	U	NA	
	Total SVOCs	mg/kg	NS	100	100	12.6		NA		3.02		NA	
PCBs													
	Aroclor 1016	mg/kg	1	NS	NS	0.0368	U	NA		0.0349	U	NA	
	Aroclor 1221	mg/kg	1	NS	NS	0.0368	U	NA		0.0349	U	NA	
	Aroclor 1232	mg/kg	1	NS	NS	0.0368	U	NA		0.0349	U	NA	
	Aroclor 1242	mg/kg	1	NS	NS	0.0368	U	NA		0.0349	U	NA	
	Aroclor 1248	mg/kg	1	NS	NS	0.0368	U	NA		0.0349	U	NA	
	Aroclor 1254	mg/kg	1	NS	NS	0.097		NA		0.134		NA	
	Aroclor 1260	mg/kg	1	NS	NS	0.0368	U	NA		0.0349	U	NA	
	Aroclor 1262	mg/kg	1	NS	NS	0.0368	U	NA		0.0349	U	NA	
	Aroclor 1268	mg/kg	1	NS	NS	0.0368	U	NA		0.0349	U	NA	
	PCBs, Total	mg/kg	1	2	2	0.097		NA		0.134		NA	
Pesticides													
	Delta-BHC	mg/kg	10	NS	NS	0.00181	U	NA		0.00167	U	NA	
	Lindane	mg/kg	0.003	NS	NS	0.000603	U	NA		0.000558	U	NA	
	Alpha-BHC	mg/kg	50	NS	NS	0.000754	U	NA		0.000698	U	NA	
	Beta-BHC	mg/kg	10	NS	NS	0.00181	U	NA		0.00167	U	NA	
	Heptachlor	mg/kg	0.3	NS	NS	0.000905	U	NA		0.000837	U	NA	
	Aldrin	mg/kg	0.08	NS	NS	0.00181	U	NA		0.00167	U	NA	
	Heptachlor epoxide	mg/kg	0.1	NS	NS	0.00356	P	NA		0.00314	U	NA	
	Endrin	mg/kg	10	NS	NS	0.000754	U	NA		0.000698	U	NA	
	Endrin ketone	mg/kg	NS	NS	NS	0.00181	U	NA		0.00167	U	NA	
	Dieldrin	mg/kg	0.08	NS	NS	0.00113	U	NA		0.00105	U	NA	
	4,4'-DDE	mg/kg	6	NS	NS	0.0023	P	NA		0.00167	U	NA	
	4,4'-DDD	mg/kg	8	NS	NS	0.00383	P	NA		0.00167	U	NA	
	4,4'-DDT	mg/kg	6	NS	NS	0.00729		NA		0.00314	U	NA	
	Endosulfan I	mg/kg	0.5	NS	NS	0.00181	U	NA		0.00167	U	NA	
	Endosulfan II	mg/kg	0.5	NS	NS	0.00181	U	NA		0.00167	U	NA	
	Endosulfan sulfate	mg/kg	NS	NS	NS	0.000754	U	NA		0.000698	U	NA	
	Methoxychlor	mg/kg	200	NS	NS	0.00339	U	NA		0.00314	U	NA	
	Chlordane	mg/kg	0.7	NS	NS	0.0151	U	NA		0.014	U	NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.00181	U	NA		0.00167	U	NA	
Herbicides													
	MCP	mg/kg	NS	NS	NS	3.8	U	NA		3.5	U	NA	
	MCPA	mg/kg	100	NS	NS	3.8	U	NA		3.5	U	NA	
	Dalapon	mg/kg	1,000	NS	NS	0.038	U	NA		0.035	U	NA	
	Dicamba	mg/kg	500	NS	NS	0.038	U	NA		0.035	U	NA	
	Dichloroprop	mg/kg	NS	NS	NS	0.038	U	NA		0.035	U	NA	
	2,4-D	mg/kg	100	NS	NS	0.038	U	NA		0.035	U	NA	
	2,4-DB	mg/kg	100	NS	NS	0.038	U	NA		0.035	U	NA	
	2,4,5-T	mg/kg	100	NS	NS	0.038	U	NA		0.035	U	NA	
	2,4,5-TP (Silvex)	mg/kg	100	NS	NS	0.038	U	NA		0.035	U	NA	

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-311B-21-DC				GLC-301B-07-DC			
						GLC-311B-21-DC-COMP		GLC-311B-21-DC-VOC-2		GLC-301B-07-DC-COMP		GLC-301B-07-DC-VOC-3	
						L2049316-03		L2049316-04		L2049316-05		L2049316-06	
						11/9/2020		11/9/2020		11/9/2020		11/9/2020	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
TPH													
	TPH (C10-C36)	mg/kg	1,000	2,500	5,000	72.4		NA		40.7		NA	
Metals, total													
	Antimony	mg/kg	20	NS	NS	2.29	U	NA		2.12	U	NA	
	Arsenic	mg/kg	20	40	40	9.19		NA		5.86		NA	
	Barium	mg/kg	1,000	NS	NS	46.7		NA		32.4		NA	
	Beryllium	mg/kg	90	NS	NS	0.229	U	NA		0.212	U	NA	
	Cadmium	mg/kg	70	30	80	0.457	U	NA		0.423	U	NA	
	Chromium	mg/kg	100	1,000	1,000	19.5		NA		16		NA	
	Lead	mg/kg	200	1,000	2,000	41.9		NA		23.5		NA	
	Mercury	mg/kg	20	10	10	0.103		NA		0.263		NA	
	Nickel	mg/kg	600	NS	NS	15.2		NA		13.4		NA	
	Selenium	mg/kg	400	NS	NS	3.25		NA		2.34		NA	
	Silver	mg/kg	100	NS	NS	0.457	U	NA		0.423	U	NA	
	Thallium	mg/kg	8	NS	NS	2.29	U	NA		2.12	U	NA	
	Vanadium	mg/kg	400	NS	NS	34.4		NA		29		NA	
	Zinc	mg/kg	1,000	NS	NS	70.8		NA		55.7		NA	
General Chemistry													
	Specific Conductance	umhos/cm	NS	4,000	8,000	82		NA		54		NA	
	pH	SU	NS	NS	NS	7.9		NA		8.1		NA	
	Cyanide, Reactive	mg/kg	NS	NS	NS	10	U	NA		10	U	NA	
	Sulfide, Reactive	mg/kg	NS	NS	NS	10	U	NA		10	U	NA	
	Ignitability		NS	NS	NS	NI		NA		NI		NA	

Notes:
mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).
su - Standard unit.
umhos/cm - Micro-mhos per centimeter.
I - The lower value for the two columns has been reported due to obvious interference.
ND - Not detected.
NI - Not ignitable.
NA - Sample not analyzed for the listed analyte.
NS - No MassDEP standards exist for this analyte.
P - The relative percent difference (RPD) between the results for the two columns exceeds the method-specified criteria.
U - Analyte was not detected at specified quantitation limit.
Values in **bold** indicate the analyte was detected.
VOCs - Volatile Organic Compounds.
SVOCs - Semivolatile Organic Compounds.
PCBs - Polychlorinated Biphenyls.
TPH - Total Petroleum Hydrocarbons.
RC - Reportable concentration.
(1) - MassDEP RC for C9-C10 aromatics used.
(2) - Criteria applicable to xylene (total), the sum of the xylene isomers.
(3) - MassDEP RC for Dichloropropane used.
(4) - MassDEP RC for Dichloropropene used.
(5) - MassDEP RC for Chlorotoluene used.
* - Reuse and Disposal of Contaminated Soil at Massachusetts Landfills, MassDEP Policy # COMM-97-001, August 1997.

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)RCS-2-FILL-2-DC				GLC-VMF(20)-RCS-2-FILL-1-DC			
						GLC-VMF(20)RCS-2-FILL-2-DC-COMP		GLC-VMF(20)RCS-2-FILL-2-DC-VOC-4		GLC-VMF(20)-RCS-2-FILL-1-DC-COMP		GLC-VMF(20)-RCS-2-FILL-1-DC-VOC-6	
						L2050552-03		L2050552-04		L2051038-07		L2051038-08	
						11/13/2020		11/13/2020		11/17/2020		11/17/2020	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
VOCs													
	Methylene chloride	mg/kg	0.1	NS	NS	NA		0.0046	U	NA		0.0037	U
	1,1-Dichloroethane	mg/kg	0.4	NS	NS	NA		0.00093	U	NA		0.00074	U
	Chloroform	mg/kg	0.2	NS	NS	NA		0.0014	U	NA		0.0011	U
	Carbon tetrachloride	mg/kg	5	NS	NS	NA		0.00093	U	NA		0.00074	U
	1,2-Dichloropropane	mg/kg	0.1	NS	NS	NA		0.00093	U	NA		0.00074	U
	Dibromochloromethane	mg/kg	0.005	NS	NS	NA		0.00093	U	NA		0.00074	U
	1,1,2-Trichloroethane	mg/kg	0.1	NS	NS	NA		0.00093	U	NA		0.00074	U
	Tetrachloroethene	mg/kg	1	NS	NS	NA		0.00088		NA		0.00054	
	Chlorobenzene	mg/kg	1	NS	NS	NA		0.00046	U	NA		0.00037	U
	Trichlorofluoromethane	mg/kg	1,000	NS	NS	NA		0.0037	U	NA		0.003	U
	1,2-Dichloroethane	mg/kg	0.1	NS	NS	NA		0.00093	U	NA		0.00074	U
	1,1,1-Trichloroethane	mg/kg	30	NS	NS	NA		0.00046	U	NA		0.00037	U
	Bromodichloromethane	mg/kg	0.1	NS	NS	NA		0.00046	U	NA		0.00037	U
	trans-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.00093	U	NA		0.00074	U
	cis-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.00046	U	NA		0.00037	U
	1,3-Dichloropropene, Total	mg/kg	0.01	NS	NS	NA		0.00046	U	NA		0.00037	U
	1,1-Dichloropropene	mg/kg	0.01(4)	NS	NS	NA		0.00046	U	NA		0.00037	U
	Bromoform	mg/kg	0.1	NS	NS	NA		0.0037	U	NA		0.003	U
	1,1,2,2-Tetrachloroethane	mg/kg	0.005	NS	NS	NA		0.00046	U	NA		0.00037	U
	Benzene	mg/kg	2	NS	NS	NA		0.00046	U	NA		0.00037	U
	Toluene	mg/kg	30	NS	NS	NA		0.00093	U	NA		0.0042	
	Ethylbenzene	mg/kg	40	NS	NS	NA		0.00093	U	NA		0.002	
	Chloromethane	mg/kg	100	NS	NS	NA		0.0037	U	NA		0.003	U
	Bromomethane	mg/kg	0.5	NS	NS	NA		0.0018	U	NA		0.0015	U
	Vinyl chloride	mg/kg	0.7	NS	NS	NA		0.00093	U	NA		0.00074	U
	Chloroethane	mg/kg	100	NS	NS	NA		0.0018	U	NA		0.0015	U
	1,1-Dichloroethene	mg/kg	3	NS	NS	NA		0.00093	U	NA		0.00074	U
	trans-1,2-Dichloroethene	mg/kg	1	NS	NS	NA		0.0014	U	NA		0.0011	U
	Trichloroethene	mg/kg	0.3	NS	NS	NA		0.00046	U	NA		0.00037	U
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	NA		0.0018	U	NA		0.0015	U
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	NA		0.0018	U	NA		0.0015	U
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	NA		0.0018	U	NA		0.0015	U
	Methyl tert butyl ether	mg/kg	0.1	NS	NS	NA		0.0018	U	NA		0.0015	U
	p/m-Xylene	mg/kg	100(2)	NS	NS	NA		0.0018	U	NA		0.0024	
	o-Xylene	mg/kg	100(2)	NS	NS	NA		0.00093	U	NA		0.0065	
	Xylenes, Total	mg/kg	100	NS	NS	NA		0.00093	U	NA		0.0089	
	cis-1,2-Dichloroethene	mg/kg	0.1	NS	NS	NA		0.00093	U	NA		0.00074	U
	1,2-Dichloroethene, Total	mg/kg	0.3	NS	NS	NA		0.00093	U	NA		0.00074	U
	Dibromomethane	mg/kg	500	NS	NS	NA		0.0018	U	NA		0.0015	U
	1,2,3-Trichloropropane	mg/kg	100	NS	NS	NA		0.0018	U	NA		0.0015	U
	Styrene	mg/kg	3	NS	NS	NA		0.00093	U	NA		0.00074	U
	Dichlorodifluoromethane	mg/kg	1,000	NS	NS	NA		0.0093	U	NA		0.0074	U
	Acetone	mg/kg	6	NS	NS	NA		0.023	U	NA		0.018	U
	Carbon disulfide	mg/kg	100	NS	NS	NA		0.0093	U	NA		0.0074	U
	Methyl ethyl ketone	mg/kg	4	NS	NS	NA		0.0093	U	NA		0.0074	U
	Methyl isobutyl ketone	mg/kg	0.4	NS	NS	NA		0.0093	U	NA		0.0074	U
	2-Hexanone	mg/kg	100	NS	NS	NA		0.0093	U	NA		0.0074	U
	Bromochloromethane	mg/kg	NS	NS	NS	NA		0.0018	U	NA		0.0015	U
	Tetrahydrofuran	mg/kg	500	NS	NS	NA		0.0037	U	NA		0.003	U
	2,2-Dichloropropane	mg/kg	0.1(3)	NS	NS	NA		0.0018	U	NA		0.0015	U
	1,2-Dibromoethane	mg/kg	0.1	NS	NS	NA		0.00093	U	NA		0.00074	U
	1,3-Dichloropropane	mg/kg	500	NS	NS	NA		0.0018	U	NA		0.0015	U
	1,1,1,2-Tetrachloroethane	mg/kg	0.1	NS	NS	NA		0.00046	U	NA		0.00037	U
	Bromobenzene	mg/kg	100	NS	NS	NA		0.0018	U	NA		0.0015	U
	n-Butylbenzene	mg/kg	100(1)	NS	NS	NA		0.00093	U	NA		0.00074	U
	sec-Butylbenzene	mg/kg	100(1)	NS	NS	NA		0.00093	U	NA		0.00074	U
	tert-Butylbenzene	mg/kg	100	NS	NS	NA		0.0018	U	NA		0.0015	U
	o-Chlorotoluene	mg/kg	100	NS	NS	NA		0.0018	U	NA		0.0015	U
	p-Chlorotoluene	mg/kg	100(5)	NS	NS	NA		0.0018	U	NA		0.0015	U

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)RCS-2-FILL-2-DC				GLC-VMF(20)-RCS-2-FILL-1-DC			
						GLC-VMF(20)RCS-2-FILL-2-DC-COMP		GLC-VMF(20)RCS-2-FILL-2-DC-VOC-4		GLC-VMF(20)-RCS-2-FILL-1-DC-COMP		GLC-VMF(20)-RCS-2-FILL-1-DC-VOC-6	
						L2050552-03		L2050552-04		L2051038-07		L2051038-08	
						11/13/2020		11/13/2020		11/17/2020		11/17/2020	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
	1,2-Dibromo-3-chloropropane	mg/kg	10	NS	NS	NA		0.0028	U	NA		0.0022	U
	Hexachlorobutadiene	mg/kg	30	NS	NS	NA		0.0037	U	NA		0.003	U
	Isopropylbenzene	mg/kg	1,000	NS	NS	NA		0.00093	U	NA		0.00074	U
	p-Isopropyltoluene	mg/kg	100	NS	NS	NA		0.00093	U	NA		0.00074	U
	Naphthalene	mg/kg	4	NS	NS	NA		0.0037	U	NA		0.003	U
	n-Propylbenzene	mg/kg	100	NS	NS	NA		0.00093	U	NA		0.00074	U
	1,2,3-Trichlorobenzene	mg/kg	NS	NS	NS	NA		0.0018	U	NA		0.0015	U
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	NA		0.0018	U	NA		0.0015	U
	1,3,5-Trimethylbenzene	mg/kg	10	NS	NS	NA		0.0018	U	NA		0.0027	
	1,2,4-Trimethylbenzene	mg/kg	1,000	NS	NS	NA		0.0018	U	NA		0.0015	U
	Diethyl ether	mg/kg	100	NS	NS	NA		0.0018	U	NA		0.0015	U
	Diisopropyl Ether	mg/kg	100	NS	NS	NA		0.0018	U	NA		0.0015	U
	Ethyl-Tert-Butyl-Ether	mg/kg	NS	NS	NS	NA		0.0018	U	NA		0.0015	U
	Tertiary-Amyl Methyl Ether	mg/kg	NS	NS	NS	NA		0.0018	U	NA		0.0015	U
	1,4-Dioxane	mg/kg	0.2	NS	NS	NA		0.074	U	NA		0.059	U
	Total VOCs	mg/kg	NS	4	10	NA		0.00088		NA		0.01834	
SVOCs													
	Acenaphthene	mg/kg	4	NS	NS	0.15	U	NA		0.14	U	NA	
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	0.18	U	NA		0.17	U	NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	Bis(2-chloroethyl)ether	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	2-Chloronaphthalene	mg/kg	1,000	NS	NS	0.18	U	NA		0.17	U	NA	
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	0.18	U	NA		0.17	U	NA	
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	0.18	U	NA		0.17	U	NA	
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	3,3'-Dichlorobenzidine	mg/kg	3	NS	NS	0.18	U	NA		0.17	U	NA	
	2,4-Dinitrotoluene	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	2,6-Dinitrotoluene	mg/kg	100	NS	NS	0.18	U	NA		0.17	U	NA	
	Azobenzene	mg/kg	50	NS	NS	0.18	U	NA		0.17	U	NA	
	Fluoranthene	mg/kg	1,000	NS	NS	0.74		NA		0.97		NA	
	4-Bromophenyl phenyl ether	mg/kg	100	NS	NS	0.18	U	NA		0.17	U	NA	
	Bis(2-chloroisopropyl)ether	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	Bis(2-chloroethoxy)methane	mg/kg	500	NS	NS	0.2	U	NA		0.19	U	NA	
	Hexachlorobutadiene	mg/kg	30	NS	NS	0.18	U	NA		0.17	U	NA	
	Hexachloroethane	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	Isophorone	mg/kg	100	NS	NS	0.16	U	NA		0.16	U	NA	
	Naphthalene	mg/kg	4	NS	NS	0.18	U	NA		0.17	U	NA	
	Nitrobenzene	mg/kg	500	NS	NS	0.16	U	NA		0.16	U	NA	
	Bis(2-ethylhexyl)phthalate	mg/kg	90	NS	NS	0.18	U	NA		0.17	U	NA	
	Butyl benzyl phthalate	mg/kg	100	NS	NS	0.18	U	NA		0.17	U	NA	
	Di-n-butylphthalate	mg/kg	50	NS	NS	0.18	U	NA		0.17	U	NA	
	Di-n-octylphthalate	mg/kg	1,000	NS	NS	0.18	U	NA		0.17	U	NA	
	Diethyl phthalate	mg/kg	10	NS	NS	0.18	U	NA		0.17	U	NA	
	Dimethyl phthalate	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	Benzo(a)anthracene	mg/kg	7	NS	NS	0.36		NA		0.48		NA	
	Benzo(a)pyrene	mg/kg	2	NS	NS	0.4		NA		0.54		NA	
	Benzo(b)fluoranthene	mg/kg	7	NS	NS	0.47		NA		0.68		NA	
	Benzo(k)fluoranthene	mg/kg	70	NS	NS	0.17		NA		0.25		NA	
	Chrysene	mg/kg	70	NS	NS	0.36		NA		0.5		NA	
	Acenaphthylene	mg/kg	1	NS	NS	0.15	U	NA		0.14	U	NA	
	Anthracene	mg/kg	1,000	NS	NS	0.12		NA		0.19		NA	
	Benzo(ghi)perylene	mg/kg	1,000	NS	NS	0.21		NA		0.31		NA	
	Fluorene	mg/kg	1,000	NS	NS	0.18	U	NA		0.17	U	NA	
	Phenanthrene	mg/kg	10	NS	NS	0.51		NA		0.6		NA	
	Dibenzo(a,h)anthracene	mg/kg	0.7	NS	NS	0.077	U	NA		0.082		NA	
	Indeno(1,2,3-cd)pyrene	mg/kg	7	NS	NS	0.23		NA		0.35		NA	
	Pyrene	mg/kg	1,000	NS	NS	0.61		NA		0.84		NA	
	Aniline	mg/kg	1,000	NS	NS	0.22	U	NA		0.21	U	NA	
	4-Chloroaniline	mg/kg	1	NS	NS	0.18	U	NA		0.17	U	NA	
	Dibenzofuran	mg/kg	100	NS	NS	0.18	U	NA		0.17	U	NA	
	2-Methylnaphthalene	mg/kg	0.7	NS	NS	0.077	U	NA		0.12		NA	

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)RCS-2-FILL-2-DC				GLC-VMF(20)-RCS-2-FILL-1-DC			
						GLC-VMF(20)RCS-2-FILL-2-DC-COMP		GLC-VMF(20)RCS-2-FILL-2-DC-VOC-4		GLC-VMF(20)-RCS-2-FILL-1-DC-COMP		GLC-VMF(20)-RCS-2-FILL-1-DC-VOC-6	
						L2050552-03		L2050552-04		L2051038-07		L2051038-08	
						11/13/2020		11/13/2020		11/17/2020		11/17/2020	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
	Acetophenone	mg/kg	1,000	NS	NS	0.18	U	NA		0.17	U	NA	
	2,4,6-Trichlorophenol	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	2-Chlorophenol	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	2,4-Dichlorophenol	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	2,4-Dimethylphenol	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	2-Nitrophenol	mg/kg	100	NS	NS	0.4	U	NA		0.38	U	NA	
	4-Nitrophenol	mg/kg	100	NS	NS	0.26	U	NA		0.24	U	NA	
	2,4-Dinitrophenol	mg/kg	3	NS	NS	0.88	U	NA		0.84	U	NA	
	Pentachlorophenol	mg/kg	3	NS	NS	0.37	U	NA		0.35	U	NA	
	Phenol	mg/kg	1	NS	NS	0.18	U	NA		0.17	U	NA	
	2-Methylphenol	mg/kg	500	NS	NS	0.18	U	NA		0.17	U	NA	
	3-Methylphenol/4-Methylphenol	mg/kg	500	NS	NS	0.26	U	NA		0.25	U	NA	
	2,4,5-Trichlorophenol	mg/kg	4	NS	NS	0.18	U	NA		0.17	U	NA	
	Pyridine	mg/kg	500	NS	NS	0.2	U	NA		0.19	U	NA	
	Total SVOCs	mg/kg	NS	100	100	4.18		NA		5.912		NA	
PCBs													
	Aroclor 1016	mg/kg	1	NS	NS	0.0361	U	NA		0.0338	U	NA	
	Aroclor 1221	mg/kg	1	NS	NS	0.0361	U	NA		0.0338	U	NA	
	Aroclor 1232	mg/kg	1	NS	NS	0.0361	U	NA		0.0338	U	NA	
	Aroclor 1242	mg/kg	1	NS	NS	0.0361	U	NA		0.0338	U	NA	
	Aroclor 1248	mg/kg	1	NS	NS	0.0361	U	NA		0.0338	U	NA	
	Aroclor 1254	mg/kg	1	NS	NS	0.137		NA		0.228		NA	
	Aroclor 1260	mg/kg	1	NS	NS	0.0361	U	NA		0.0338	U	NA	
	Aroclor 1262	mg/kg	1	NS	NS	0.0361	U	NA		0.0338	U	NA	
	Aroclor 1268	mg/kg	1	NS	NS	0.0361	U	NA		0.0338	U	NA	
	PCBs, Total	mg/kg	1	2	2	0.137		NA		0.228		NA	
Pesticides													
	Delta-BHC	mg/kg	10	NS	NS	0.00177	U	NA		0.00163	U	NA	
	Lindane	mg/kg	0.003	NS	NS	0.00059	U	NA		0.000544	U	NA	
	Alpha-BHC	mg/kg	50	NS	NS	0.000737	U	NA		0.00068	U	NA	
	Beta-BHC	mg/kg	10	NS	NS	0.00177	U	NA		0.00163	U	NA	
	Heptachlor	mg/kg	0.3	NS	NS	0.000885	U	NA		0.000815	U	NA	
	Aldrin	mg/kg	0.08	NS	NS	0.00177	U	NA		0.00163	U	NA	
	Heptachlor epoxide	mg/kg	0.1	NS	NS	0.014	P	NA		0.00306	U	NA	
	Endrin	mg/kg	10	NS	NS	0.000737	U	NA		0.00068	U	NA	
	Endrin ketone	mg/kg	NS	NS	NS	0.00177	U	NA		0.00163	U	NA	
	Dieldrin	mg/kg	0.08	NS	NS	0.00111	U	NA		0.00102	U	NA	
	4,4'-DDE	mg/kg	6	NS	NS	0.00177	U	NA		0.00163	U	NA	
	4,4'-DDD	mg/kg	8	NS	NS	0.00454		NA		0.00353		NA	
	4,4'-DDT	mg/kg	6	NS	NS	0.00598	IP	NA		0.00306	U	NA	
	Endosulfan I	mg/kg	0.5	NS	NS	0.00177	U	NA		0.00163	U	NA	
	Endosulfan II	mg/kg	0.5	NS	NS	0.00177	U	NA		0.00163	U	NA	
	Endosulfan sulfate	mg/kg	NS	NS	NS	0.000737	U	NA		0.00068	U	NA	
	Methoxychlor	mg/kg	200	NS	NS	0.00332	U	NA		0.00306	U	NA	
	Chlordane	mg/kg	0.7	NS	NS	0.0147	U	NA		0.0136	U	NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.00177	U	NA		0.00163	U	NA	
Herbicides													
	MCP	mg/kg	NS	NS	NS	3.7	U	NA		3.5	U	NA	
	MCPA	mg/kg	100	NS	NS	3.7	U	NA		3.5	U	NA	
	Dalapon	mg/kg	1,000	NS	NS	0.037	U	NA		0.035	U	NA	
	Dicamba	mg/kg	500	NS	NS	0.037	U	NA		0.035	U	NA	
	Dichloroprop	mg/kg	NS	NS	NS	0.037	U	NA		0.035	U	NA	
	2,4-D	mg/kg	100	NS	NS	0.037	U	NA		0.035	U	NA	
	2,4-DB	mg/kg	100	NS	NS	0.037	U	NA		0.035	U	NA	
	2,4,5-T	mg/kg	100	NS	NS	0.037	U	NA		0.035	U	NA	
	2,4,5-TP (Silvex)	mg/kg	100	NS	NS	0.037	U	NA		0.035	U	NA	

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)RCS-2-FILL-2-DC				GLC-VMF(20)-RCS-2-FILL-1-DC			
						GLC-VMF(20)RCS-2-FILL-2-DC-COMP		GLC-VMF(20)RCS-2-FILL-2-DC-VOC-4		GLC-VMF(20)-RCS-2-FILL-1-DC-COMP		GLC-VMF(20)-RCS-2-FILL-1-DC-VOC-6	
						L2050552-03		L2050552-04		L2051038-07		L2051038-08	
						11/13/2020		11/13/2020		11/17/2020		11/17/2020	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
TPH													
	TPH (C10-C36)	mg/kg	1,000	2,500	5,000	78.4		NA		84.2		NA	
Metals, total													
	Antimony	mg/kg	20	NS	NS	2.23	U	NA		2.11	U	NA	
	Arsenic	mg/kg	20	40	40	6.64		NA		8.29		NA	
	Barium	mg/kg	1,000	NS	NS	39.4		NA		35		NA	
	Beryllium	mg/kg	90	NS	NS	0.223	U	NA		0.211	U	NA	
	Cadmium	mg/kg	70	30	80	0.696		NA		0.532		NA	
	Chromium	mg/kg	100	1,000	1,000	16.3		NA		17.8		NA	
	Lead	mg/kg	200	1,000	2,000	32.4		NA		31.9		NA	
	Mercury	mg/kg	20	10	10	0.162		NA		0.091		NA	
	Nickel	mg/kg	600	NS	NS	14.4		NA		13.7		NA	
	Selenium	mg/kg	400	NS	NS	2.23	U	NA		2.11	U	NA	
	Silver	mg/kg	100	NS	NS	0.446	U	NA		0.422	U	NA	
	Thallium	mg/kg	8	NS	NS	2.23	U	NA		2.11	U	NA	
	Vanadium	mg/kg	400	NS	NS	35.4		NA		29.1		NA	
	Zinc	mg/kg	1,000	NS	NS	66.4		NA		65.7		NA	
General Chemistry													
	Specific Conductance	umhos/cm	NS	4,000	8,000	94		NA		89		NA	
	pH	SU	NS	NS	NS	8		NA		8.2		NA	
	Cyanide, Reactive	mg/kg	NS	NS	NS	10	U	NA		10	U	NA	
	Sulfide, Reactive	mg/kg	NS	NS	NS	10	U	NA		10	U	NA	
	Ignitability		NS	NS	NS	NI		NA		NI		NA	

Notes:

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

su - Standard unit.

umhos/cm - Micro-mhos per centimeter.

I - The lower value for the two columns has been reported due to obvious interference.

ND - Not detected.

NI - Not ignitable.

NA - Sample not analyzed for the listed analyte.

NS - No MassDEP standards exist for this analyte.

P - The relative percent difference (RPD) between the results for the two columns exceeds the method-specified criteria.

U - Analyte was not detected at specified quantitation limit.

Values in **bold** indicate the analyte was detected.

VOCs - Volatile Organic Compounds.

SVOCs - Semivolatile Organic Compounds.

PCBs - Polychlorinated Biphenyls.

TPH - Total Petroleum Hydrocarbons.

RC - Reportable concentration.

(1) - MassDEP RC for C9-C10 aromatics used.

(2) - Criteria applicable to xylene (total), the sum of the xylene isomers.

(3) - MassDEP RC for Dichloropropane used.

(4) - MassDEP RC for Dichloropropene used.

(5) - MassDEP RC for Chlorotoluene used.

* - Reuse and Disposal of Contaminated Soil at Massachusetts Landfills, MassDEP Policy # COMM-97-001, August 1997.

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)-RCS-2-FILL-10-DC				GLC-VMF(20)-RCS-2-FILL(7)-DC			
						GLC-VMF(20)-RCS-2-FILL-10-DC-COMP		GLC-VMF(20)-RCS-2-FILL-10-DC-VOC-2		GLC-VMF(20)-RCS-2-FILL(7)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(7)-DC-VOC(1)	
						L2051038-09		L2051038-10		L2052968-01		L2052968-02	
						11/17/2020		11/17/2020		11/30/2020		11/30/2020	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
VOCs													
	Methylene chloride	mg/kg	0.1	NS	NS	NA		0.0035	U	NA		0.0025	U
	1,1-Dichloroethane	mg/kg	0.4	NS	NS	NA		0.00069	U	NA		0.00051	U
	Chloroform	mg/kg	0.2	NS	NS	NA		0.001	U	NA		0.00076	U
	Carbon tetrachloride	mg/kg	5	NS	NS	NA		0.00069	U	NA		0.00051	U
	1,2-Dichloropropane	mg/kg	0.1	NS	NS	NA		0.00069	U	NA		0.00051	U
	Dibromochloromethane	mg/kg	0.005	NS	NS	NA		0.00069	U	NA		0.00051	U
	1,1,2-Trichloroethane	mg/kg	0.1	NS	NS	NA		0.00069	U	NA		0.00051	U
	Tetrachloroethene	mg/kg	1	NS	NS	NA		0.00035		NA		0.00026	
	Chlorobenzene	mg/kg	1	NS	NS	NA		0.00035	U	NA		0.00025	U
	Trichlorofluoromethane	mg/kg	1,000	NS	NS	NA		0.0028	U	NA		0.002	U
	1,2-Dichloroethane	mg/kg	0.1	NS	NS	NA		0.00069	U	NA		0.00051	U
	1,1,1-Trichloroethane	mg/kg	30	NS	NS	NA		0.00035	U	NA		0.00025	U
	Bromodichloromethane	mg/kg	0.1	NS	NS	NA		0.00035	U	NA		0.00025	U
	trans-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.00069	U	NA		0.00051	U
	cis-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.00035	U	NA		0.00025	U
	1,3-Dichloropropene, Total	mg/kg	0.01	NS	NS	NA		0.00035	U	NA		0.00025	U
	1,1-Dichloropropene	mg/kg	0.01(4)	NS	NS	NA		0.00035	U	NA		0.00025	U
	Bromoform	mg/kg	0.1	NS	NS	NA		0.0028	U	NA		0.002	U
	1,1,2,2-Tetrachloroethane	mg/kg	0.005	NS	NS	NA		0.00035	U	NA		0.00025	U
	Benzene	mg/kg	2	NS	NS	NA		0.00035	U	NA		0.00025	U
	Toluene	mg/kg	30	NS	NS	NA		0.00069	U	NA		0.00051	U
	Ethylbenzene	mg/kg	40	NS	NS	NA		0.00069	U	NA		0.00051	U
	Chloromethane	mg/kg	100	NS	NS	NA		0.0028	U	NA		0.002	U
	Bromomethane	mg/kg	0.5	NS	NS	NA		0.0014	U	NA		0.001	U
	Vinyl chloride	mg/kg	0.7	NS	NS	NA		0.00069	U	NA		0.00051	U
	Chloroethane	mg/kg	100	NS	NS	NA		0.0014	U	NA		0.001	U
	1,1-Dichloroethene	mg/kg	3	NS	NS	NA		0.00069	U	NA		0.00051	U
	trans-1,2-Dichloroethene	mg/kg	1	NS	NS	NA		0.001	U	NA		0.00076	U
	Trichloroethene	mg/kg	0.3	NS	NS	NA		0.00035	U	NA		0.00025	U
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	NA		0.0014	U	NA		0.001	U
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	NA		0.0014	U	NA		0.001	U
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	NA		0.0014	U	NA		0.001	U
	Methyl tert butyl ether	mg/kg	0.1	NS	NS	NA		0.0014	U	NA		0.001	U
	p/m-Xylene	mg/kg	100(2)	NS	NS	NA		0.0014	U	NA		0.001	U
	o-Xylene	mg/kg	100(2)	NS	NS	NA		0.00069	U	NA		0.00051	U
	Xylenes, Total	mg/kg	100	NS	NS	NA		0.00069	U	NA		0.00051	U
	cis-1,2-Dichloroethene	mg/kg	0.1	NS	NS	NA		0.00069	U	NA		0.00051	U
	1,2-Dichloroethene, Total	mg/kg	0.3	NS	NS	NA		0.00069	U	NA		0.00051	U
	Dibromomethane	mg/kg	500	NS	NS	NA		0.0014	U	NA		0.001	U
	1,2,3-Trichloropropane	mg/kg	100	NS	NS	NA		0.0014	U	NA		0.001	U
	Styrene	mg/kg	3	NS	NS	NA		0.00069	U	NA		0.00051	U
	Dichlorodifluoromethane	mg/kg	1,000	NS	NS	NA		0.0069	U	NA		0.0051	U
	Acetone	mg/kg	6	NS	NS	NA		0.017	U	NA		0.013	
	Carbon disulfide	mg/kg	100	NS	NS	NA		0.0069	U	NA		0.0051	U
	Methyl ethyl ketone	mg/kg	4	NS	NS	NA		0.0069	U	NA		0.0051	U
	Methyl isobutyl ketone	mg/kg	0.4	NS	NS	NA		0.0069	U	NA		0.0051	U
	2-Hexanone	mg/kg	100	NS	NS	NA		0.0069	U	NA		0.0051	U
	Bromochloromethane	mg/kg	NS	NS	NS	NA		0.0014	U	NA		0.001	U
	Tetrahydrofuran	mg/kg	500	NS	NS	NA		0.0028	U	NA		0.002	U
	2,2-Dichloropropane	mg/kg	0.1(3)	NS	NS	NA		0.0014	U	NA		0.001	U
	1,2-Dibromoethane	mg/kg	0.1	NS	NS	NA		0.00069	U	NA		0.00051	U
	1,3-Dichloropropane	mg/kg	500	NS	NS	NA		0.0014	U	NA		0.001	U
	1,1,1,2-Tetrachloroethane	mg/kg	0.1	NS	NS	NA		0.00035	U	NA		0.00025	U
	Bromobenzene	mg/kg	100	NS	NS	NA		0.0014	U	NA		0.001	U
	n-Butylbenzene	mg/kg	100(1)	NS	NS	NA		0.00069	U	NA		0.00051	U
	sec-Butylbenzene	mg/kg	100(1)	NS	NS	NA		0.00069	U	NA		0.00051	U
	tert-Butylbenzene	mg/kg	100	NS	NS	NA		0.0014	U	NA		0.001	U
	o-Chlorotoluene	mg/kg	100	NS	NS	NA		0.0014	U	NA		0.001	U
	p-Chlorotoluene	mg/kg	100(5)	NS	NS	NA		0.0014	U	NA		0.001	U

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)-RCS-2-FILL-10-DC				GLC-VMF(20)-RCS-2-FILL(7)-DC			
						GLC-VMF(20)-RCS-2-FILL-10-DC-COMP		GLC-VMF(20)-RCS-2-FILL-10-DC-VOC-2		GLC-VMF(20)-RCS-2-FILL(7)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(7)-DC-VOC(1)	
						L2051038-09		L2051038-10		L2052968-01		L2052968-02	
						11/17/2020		11/17/2020		11/30/2020		11/30/2020	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
	1,2-Dibromo-3-chloropropane	mg/kg	10	NS	NS	NA		0.0021	U	NA		0.0015	U
	Hexachlorobutadiene	mg/kg	30	NS	NS	NA		0.0028	U	NA		0.002	U
	Isopropylbenzene	mg/kg	1,000	NS	NS	NA		0.00069	U	NA		0.00051	U
	p-Isopropyltoluene	mg/kg	100	NS	NS	NA		0.00069	U	NA		0.00051	U
	Naphthalene	mg/kg	4	NS	NS	NA		0.0028	U	NA		0.002	U
	n-Propylbenzene	mg/kg	100	NS	NS	NA		0.00069	U	NA		0.00051	U
	1,2,3-Trichlorobenzene	mg/kg	NS	NS	NS	NA		0.0014	U	NA		0.001	U
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	NA		0.0014	U	NA		0.001	U
	1,3,5-Trimethylbenzene	mg/kg	10	NS	NS	NA		0.0014	U	NA		0.001	U
	1,2,4-Trimethylbenzene	mg/kg	1,000	NS	NS	NA		0.0014	U	NA		0.001	U
	Diethyl ether	mg/kg	100	NS	NS	NA		0.0014	U	NA		0.001	U
	Diisopropyl Ether	mg/kg	100	NS	NS	NA		0.0014	U	NA		0.001	U
	Ethyl-Tert-Butyl-Ether	mg/kg	NS	NS	NS	NA		0.0014	U	NA		0.001	U
	Tertiary-Amyl Methyl Ether	mg/kg	NS	NS	NS	NA		0.0014	U	NA		0.001	U
	1,4-Dioxane	mg/kg	0.2	NS	NS	NA		0.056	U	NA		0.041	U
	Total VOCs	mg/kg	NS	4	10	NA		0.00035		NA		0.01326	
SVOCs													
	Acenaphthene	mg/kg	4	NS	NS	0.14	U	NA		0.14	U	NA	
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	0.18	U	NA		0.17	U	NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.074	U	NA		0.073	U	NA	
	Bis(2-chloroethyl)ether	mg/kg	0.7	NS	NS	0.074	U	NA		0.073	U	NA	
	2-Chloronaphthalene	mg/kg	1,000	NS	NS	0.18	U	NA		0.17	U	NA	
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	0.18	U	NA		0.17	U	NA	
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	0.18	U	NA		0.17	U	NA	
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	0.074	U	NA		0.073	U	NA	
	3,3'-Dichlorobenzidine	mg/kg	3	NS	NS	0.18	U	NA		0.17	U	NA	
	2,4-Dinitrotoluene	mg/kg	0.7	NS	NS	0.074	U	NA		0.073	U	NA	
	2,6-Dinitrotoluene	mg/kg	100	NS	NS	0.18	U	NA		0.17	U	NA	
	Azobenzene	mg/kg	50	NS	NS	0.18	U	NA		0.17	U	NA	
	Fluoranthene	mg/kg	1,000	NS	NS	0.23		NA		0.31		NA	
	4-Bromophenyl phenyl ether	mg/kg	100	NS	NS	0.18	U	NA		0.17	U	NA	
	Bis(2-chloroisopropyl)ether	mg/kg	0.7	NS	NS	0.074	U	NA		0.073	U	NA	
	Bis(2-chloroethoxy)methane	mg/kg	500	NS	NS	0.19	U	NA		0.19	U	NA	
	Hexachlorobutadiene	mg/kg	30	NS	NS	0.18	U	NA		0.17	U	NA	
	Hexachloroethane	mg/kg	0.7	NS	NS	0.074	U	NA		0.073	U	NA	
	Isophorone	mg/kg	100	NS	NS	0.16	U	NA		0.16	U	NA	
	Naphthalene	mg/kg	4	NS	NS	0.18	U	NA		0.17	U	NA	
	Nitrobenzene	mg/kg	500	NS	NS	0.16	U	NA		0.16	U	NA	
	Bis(2-ethylhexyl)phthalate	mg/kg	90	NS	NS	0.18	U	NA		0.17	U	NA	
	Butyl benzyl phthalate	mg/kg	100	NS	NS	0.18	U	NA		0.17	U	NA	
	Di-n-butylphthalate	mg/kg	50	NS	NS	0.18	U	NA		0.17	U	NA	
	Di-n-octylphthalate	mg/kg	1,000	NS	NS	0.18	U	NA		0.17	U	NA	
	Diethyl phthalate	mg/kg	10	NS	NS	0.18	U	NA		0.17	U	NA	
	Dimethyl phthalate	mg/kg	0.7	NS	NS	0.074	U	NA		0.073	U	NA	
	Benzo(a)anthracene	mg/kg	7	NS	NS	0.12		NA		0.16		NA	
	Benzo(a)pyrene	mg/kg	2	NS	NS	0.14		NA		0.17		NA	
	Benzo(b)fluoranthene	mg/kg	7	NS	NS	0.19		NA		0.2		NA	
	Benzo(k)fluoranthene	mg/kg	70	NS	NS	0.11	U	NA		0.1	U	NA	
	Chrysene	mg/kg	70	NS	NS	0.14		NA		0.16		NA	
	Acenaphthylene	mg/kg	1	NS	NS	0.14	U	NA		0.14	U	NA	
	Anthracene	mg/kg	1,000	NS	NS	0.11	U	NA		0.1	U	NA	
	Benzo(ghi)perylene	mg/kg	1,000	NS	NS	0.14	U	NA		0.14	U	NA	
	Fluorene	mg/kg	1,000	NS	NS	0.18	U	NA		0.17	U	NA	
	Phenanthrene	mg/kg	10	NS	NS	0.16		NA		0.2		NA	
	Dibenzo(a,h)anthracene	mg/kg	0.7	NS	NS	0.074	U	NA		0.073	U	NA	
	Indeno(1,2,3-cd)pyrene	mg/kg	7	NS	NS	0.14	U	NA		0.14	U	NA	
	Pyrene	mg/kg	1,000	NS	NS	0.2		NA		0.28		NA	
	Aniline	mg/kg	1,000	NS	NS	0.21	U	NA		0.21	U	NA	
	4-Chloroaniline	mg/kg	1	NS	NS	0.18	U	NA		0.17	U	NA	
	Dibenzofuran	mg/kg	100	NS	NS	0.18	U	NA		0.17	U	NA	
	2-Methylnaphthalene	mg/kg	0.7	NS	NS	0.083		NA		0.073	U	NA	

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)-RCS-2-FILL-10-DC				GLC-VMF(20)-RCS-2-FILL(7)-DC			
						GLC-VMF(20)-RCS-2-FILL-10-DC-COMP		GLC-VMF(20)-RCS-2-FILL-10-DC-VOC-2		GLC-VMF(20)-RCS-2-FILL(7)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(7)-DC-VOC(1)	
						L2051038-09		L2051038-10		L2052968-01		L2052968-02	
11/17/2020		11/17/2020		11/30/2020		11/30/2020							
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
	Acetophenone	mg/kg	1,000	NS	NS	0.18	U	NA		0.17	U	NA	
	2,4,6-Trichlorophenol	mg/kg	0.7	NS	NS	0.074	U	NA		0.073	U	NA	
	2-Chlorophenol	mg/kg	0.7	NS	NS	0.074	U	NA		0.073	U	NA	
	2,4-Dichlorophenol	mg/kg	0.7	NS	NS	0.074	U	NA		0.073	U	NA	
	2,4-Dimethylphenol	mg/kg	0.7	NS	NS	0.074	U	NA		0.073	U	NA	
	2-Nitrophenol	mg/kg	100	NS	NS	0.38	U	NA		0.38	U	NA	
	4-Nitrophenol	mg/kg	100	NS	NS	0.25	U	NA		0.24	U	NA	
	2,4-Dinitrophenol	mg/kg	3	NS	NS	0.85	U	NA		0.84	U	NA	
	Pentachlorophenol	mg/kg	3	NS	NS	0.35	U	NA		0.35	U	NA	
	Phenol	mg/kg	1	NS	NS	0.18	U	NA		0.17	U	NA	
	2-Methylphenol	mg/kg	500	NS	NS	0.18	U	NA		0.17	U	NA	
	3-Methylphenol/4-Methylphenol	mg/kg	500	NS	NS	0.25	U	NA		0.25	U	NA	
	2,4,5-Trichlorophenol	mg/kg	4	NS	NS	0.18	U	NA		0.17	U	NA	
	Pyridine	mg/kg	500	NS	NS	0.19	U	NA		0.19	U	NA	
	Total SVOCs	mg/kg	NS	100	100	1.263		NA		1.48		NA	
PCBs													
	Aroclor 1016	mg/kg	1	NS	NS	0.0361	U	NA		0.0335	U	NA	
	Aroclor 1221	mg/kg	1	NS	NS	0.0361	U	NA		0.0335	U	NA	
	Aroclor 1232	mg/kg	1	NS	NS	0.0361	U	NA		0.0335	U	NA	
	Aroclor 1242	mg/kg	1	NS	NS	0.0361	U	NA		0.0335	U	NA	
	Aroclor 1248	mg/kg	1	NS	NS	0.0361	U	NA		0.0335	U	NA	
	Aroclor 1254	mg/kg	1	NS	NS	0.0826		NA		0.458		NA	
	Aroclor 1260	mg/kg	1	NS	NS	0.0361	U	NA		0.0335	U	NA	
	Aroclor 1262	mg/kg	1	NS	NS	0.0361	U	NA		0.0335	U	NA	
	Aroclor 1268	mg/kg	1	NS	NS	0.0361	U	NA		0.0335	U	NA	
	PCBs, Total	mg/kg	1	2	2	0.0826		NA		0.458		NA	
Pesticides													
	Delta-BHC	mg/kg	10	NS	NS	0.00169	U	NA		0.00167	U	NA	
	Lindane	mg/kg	0.003	NS	NS	0.000563	U	NA		0.000557	U	NA	
	Alpha-BHC	mg/kg	50	NS	NS	0.000704	U	NA		0.000696	U	NA	
	Beta-BHC	mg/kg	10	NS	NS	0.00169	U	NA		0.00167	U	NA	
	Heptachlor	mg/kg	0.3	NS	NS	0.000845	U	NA		0.000836	U	NA	
	Aldrin	mg/kg	0.08	NS	NS	0.00169	U	NA		0.00167	U	NA	
	Heptachlor epoxide	mg/kg	0.1	NS	NS	0.00317	U	NA		0.00313	U	NA	
	Endrin	mg/kg	10	NS	NS	0.000704	U	NA		0.000696	U	NA	
	Endrin ketone	mg/kg	NS	NS	NS	0.00169	U	NA		0.00167	U	NA	
	Dieldrin	mg/kg	0.08	NS	NS	0.00106	U	NA		0.00104	U	NA	
	4,4'-DDE	mg/kg	6	NS	NS	0.00169	U	NA		0.00167	U	NA	
	4,4'-DDD	mg/kg	8	NS	NS	0.00169	U	NA		0.00472		NA	
	4,4'-DDT	mg/kg	6	NS	NS	0.00317	U	NA		0.00876	IP	NA	
	Endosulfan I	mg/kg	0.5	NS	NS	0.00169	U	NA		0.00167	U	NA	
	Endosulfan II	mg/kg	0.5	NS	NS	0.00169	U	NA		0.00167	U	NA	
	Endosulfan sulfate	mg/kg	NS	NS	NS	0.000704	U	NA		0.000696	U	NA	
	Methoxychlor	mg/kg	200	NS	NS	0.00317	U	NA		0.00313	U	NA	
	Chlordane	mg/kg	0.7	NS	NS	0.0141	U	NA		0.0214	IP	NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.00169	U	NA		0.00167	U	NA	
Herbicides													
	MCPP	mg/kg	NS	NS	NS	3.6	U	NA		3.5	U	NA	
	MCPA	mg/kg	100	NS	NS	3.6	U	NA		3.5	U	NA	
	Dalapon	mg/kg	1,000	NS	NS	0.036	U	NA		0.035	U	NA	
	Dicamba	mg/kg	500	NS	NS	0.036	U	NA		0.035	U	NA	
	Dichloroprop	mg/kg	NS	NS	NS	0.036	U	NA		0.035	U	NA	
	2,4-D	mg/kg	100	NS	NS	0.036	U	NA		0.035	U	NA	
	2,4-DB	mg/kg	100	NS	NS	0.036	U	NA		0.035	U	NA	
	2,4,5-T	mg/kg	100	NS	NS	0.036	U	NA		0.035	U	NA	
	2,4,5-TP (Silvex)	mg/kg	100	NS	NS	0.036	U	NA		0.035	U	NA	

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)-RCS-2-FILL-10-DC				GLC-VMF(20)-RCS-2-FILL(7)-DC			
						GLC-VMF(20)-RCS-2-FILL-10-DC-COMP		GLC-VMF(20)-RCS-2-FILL-10-DC-VOC-2		GLC-VMF(20)-RCS-2-FILL(7)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(7)-DC-VOC(1)	
						L2051038-09		L2051038-10		L2052968-01		L2052968-02	
						11/17/2020		11/17/2020		11/30/2020		11/30/2020	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
TPH													
	TPH (C10-C36)	mg/kg	1,000	2,500	5,000	58		NA		76.1		NA	
Metals, total													
	Antimony	mg/kg	20	NS	NS	2.06	U	NA		2.03	U	NA	
	Arsenic	mg/kg	20	40	40	4.85		NA		6.3		NA	
	Barium	mg/kg	1,000	NS	NS	31.1		NA		45		NA	
	Beryllium	mg/kg	90	NS	NS	0.206	U	NA		0.211		NA	
	Cadmium	mg/kg	70	30	80	0.581		NA		0.564		NA	
	Chromium	mg/kg	100	1,000	1,000	26.8		NA		27.2		NA	
	Lead	mg/kg	200	1,000	2,000	13.4		NA		30.1		NA	
	Mercury	mg/kg	20	10	10	0.079	U	NA		0.085	U	NA	
	Nickel	mg/kg	600	NS	NS	17.8		NA		16.6		NA	
	Selenium	mg/kg	400	NS	NS	2.06	U	NA		2.03	U	NA	
	Silver	mg/kg	100	NS	NS	0.412	U	NA		0.406	U	NA	
	Thallium	mg/kg	8	NS	NS	2.06	U	NA		2.03	U	NA	
	Vanadium	mg/kg	400	NS	NS	41.8		NA		31.9		NA	
	Zinc	mg/kg	1,000	NS	NS	42.8		NA		51.7		NA	
General Chemistry													
	Specific Conductance	umhos/cm	NS	4,000	8,000	210		NA		110		NA	
	pH	SU	NS	NS	NS	8		NA		8.1		NA	
	Cyanide, Reactive	mg/kg	NS	NS	NS	10	U	NA		10	U	NA	
	Sulfide, Reactive	mg/kg	NS	NS	NS	10	U	NA		10	U	NA	
	Ignitability		NS	NS	NS	NI		NA		NI		NA	

Notes:

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

su - Standard unit.

umhos/cm - Micro-mhos per centimeter.

I - The lower value for the two columns has been reported due to obvious interference.

ND - Not detected.

NI - Not ignitable.

NA - Sample not analyzed for the listed analyte.

NS - No MassDEP standards exist for this analyte.

P - The relative percent difference (RPD) between the results for the two columns exceeds the method-specified criteria.

U - Analyte was not detected at specified quantitation limit.

Values in **bold** indicate the analyte was detected.

VOCs - Volatile Organic Compounds.

SVOCs - Semivolatile Organic Compounds.

PCBs - Polychlorinated Biphenyls.

TPH - Total Petroleum Hydrocarbons.

RC - Reportable concentration.

(1) - MassDEP RC for C9-C10 aromatics used.

(2) - Criteria applicable to xylene (total), the sum of the xylene isomers.

(3) - MassDEP RC for Dichloropropane used.

(4) - MassDEP RC for Dichloropropene used.

(5) - MassDEP RC for Chlorotoluene used.

* - Reuse and Disposal of Contaminated Soil at Massachusetts Landfills, MassDEP Policy # COMM-97-001, August 1997.

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)-RCS-2-FILL(8)- DC				GLC-VMF(20)-RCS-2-FILL(14)- DC			
						GLC-VMF(20)- RCS-2-FILL(8)- DC-COMP		GLC-VMF(20)- RCS-2-FILL(8)- DC-VOC(1)		GLC-VMF(20)- RCS-2-FILL(14)- DC-COMP		GLC-VMF(20)- RCS-2-FILL(14)- DC-VOC-3	
						L2052968-03		L2052968-04		L2053491-01		L2053491-02	
						11/30/2020		11/30/2020		12/2/2020		12/2/2020	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
VOCs													
	Methylene chloride	mg/kg	0.1	NS	NS	NA		0.003	U	NA		0.0039	U
	1,1-Dichloroethane	mg/kg	0.4	NS	NS	NA		0.0006	U	NA		0.00078	U
	Chloroform	mg/kg	0.2	NS	NS	NA		0.0009	U	NA		0.0012	U
	Carbon tetrachloride	mg/kg	5	NS	NS	NA		0.0006	U	NA		0.00078	U
	1,2-Dichloropropane	mg/kg	0.1	NS	NS	NA		0.0006	U	NA		0.00078	U
	Dibromochloromethane	mg/kg	0.005	NS	NS	NA		0.0006	U	NA		0.00078	U
	1,1,2-Trichloroethane	mg/kg	0.1	NS	NS	NA		0.0006	U	NA		0.00078	U
	Tetrachloroethene	mg/kg	1	NS	NS	NA		0.0003	U	NA		0.00057	
	Chlorobenzene	mg/kg	1	NS	NS	NA		0.0003	U	NA		0.00039	U
	Trichlorofluoromethane	mg/kg	1,000	NS	NS	NA		0.0083		NA		0.0031	U
	1,2-Dichloroethane	mg/kg	0.1	NS	NS	NA		0.0006	U	NA		0.00078	U
	1,1,1-Trichloroethane	mg/kg	30	NS	NS	NA		0.0003	U	NA		0.00039	U
	Bromodichloromethane	mg/kg	0.1	NS	NS	NA		0.0003	U	NA		0.00039	U
	trans-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.0006	U	NA		0.00078	U
	cis-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.0003	U	NA		0.00039	U
	1,3-Dichloropropene, Total	mg/kg	0.01	NS	NS	NA		0.0003	U	NA		0.00039	U
	1,1-Dichloropropene	mg/kg	0.01(4)	NS	NS	NA		0.0003	U	NA		0.00039	U
	Bromoform	mg/kg	0.1	NS	NS	NA		0.0024	U	NA		0.0031	U
	1,1,2,2-Tetrachloroethane	mg/kg	0.005	NS	NS	NA		0.0003	U	NA		0.00039	U
	Benzene	mg/kg	2	NS	NS	NA		0.0003	U	NA		0.00039	U
	Toluene	mg/kg	30	NS	NS	NA		0.0006	U	NA		0.00078	U
	Ethylbenzene	mg/kg	40	NS	NS	NA		0.0006	U	NA		0.00078	U
	Chloromethane	mg/kg	100	NS	NS	NA		0.0024	U	NA		0.0031	U
	Bromomethane	mg/kg	0.5	NS	NS	NA		0.0012	U	NA		0.0016	U
	Vinyl chloride	mg/kg	0.7	NS	NS	NA		0.0006	U	NA		0.00078	U
	Chloroethane	mg/kg	100	NS	NS	NA		0.0012	U	NA		0.0016	U
	1,1-Dichloroethene	mg/kg	3	NS	NS	NA		0.0006	U	NA		0.00078	U
	trans-1,2-Dichloroethene	mg/kg	1	NS	NS	NA		0.0009	U	NA		0.0012	U
	Trichloroethene	mg/kg	0.3	NS	NS	NA		0.0003	U	NA		0.00039	U
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	NA		0.0012	U	NA		0.0016	U
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	NA		0.0012	U	NA		0.0016	U
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	NA		0.0012	U	NA		0.0016	U
	Methyl tert butyl ether	mg/kg	0.1	NS	NS	NA		0.0012	U	NA		0.0016	U
	p/m-Xylene	mg/kg	100(2)	NS	NS	NA		0.0012	U	NA		0.0016	U
	o-Xylene	mg/kg	100(2)	NS	NS	NA		0.0006	U	NA		0.00078	U
	Xylenes, Total	mg/kg	100	NS	NS	NA		0.0006	U	NA		0.00078	U
	cis-1,2-Dichloroethene	mg/kg	0.1	NS	NS	NA		0.0006	U	NA		0.00078	U
	1,2-Dichloroethene, Total	mg/kg	0.3	NS	NS	NA		0.0006	U	NA		0.00078	U
	Dibromomethane	mg/kg	500	NS	NS	NA		0.0012	U	NA		0.0016	U
	1,2,3-Trichloropropane	mg/kg	100	NS	NS	NA		0.0012	U	NA		0.0016	U
	Styrene	mg/kg	3	NS	NS	NA		0.0006	U	NA		0.00078	U
	Dichlorodifluoromethane	mg/kg	1,000	NS	NS	NA		0.006	U	NA		0.0078	U
	Acetone	mg/kg	6	NS	NS	NA		0.015	U	NA		0.019	U
	Carbon disulfide	mg/kg	100	NS	NS	NA		0.006	U	NA		0.0078	U
	Methyl ethyl ketone	mg/kg	4	NS	NS	NA		0.006	U	NA		0.0078	U
	Methyl isobutyl ketone	mg/kg	0.4	NS	NS	NA		0.006	U	NA		0.0078	U
	2-Hexanone	mg/kg	100	NS	NS	NA		0.006	U	NA		0.0078	U
	Bromochloromethane	mg/kg	NS	NS	NS	NA		0.0012	U	NA		0.0016	U
	Tetrahydrofuran	mg/kg	500	NS	NS	NA		0.0024	U	NA		0.0031	U
	2,2-Dichloropropane	mg/kg	0.1(3)	NS	NS	NA		0.0012	U	NA		0.0016	U
	1,2-Dibromoethane	mg/kg	0.1	NS	NS	NA		0.0006	U	NA		0.00078	U
	1,3-Dichloropropane	mg/kg	500	NS	NS	NA		0.0012	U	NA		0.0016	U
	1,1,1,2-Tetrachloroethane	mg/kg	0.1	NS	NS	NA		0.0003	U	NA		0.00039	U
	Bromobenzene	mg/kg	100	NS	NS	NA		0.0012	U	NA		0.0016	U
	n-Butylbenzene	mg/kg	100(1)	NS	NS	NA		0.0006	U	NA		0.00078	U
	sec-Butylbenzene	mg/kg	100(1)	NS	NS	NA		0.0006	U	NA		0.00078	U
	tert-Butylbenzene	mg/kg	100	NS	NS	NA		0.0012	U	NA		0.0016	U
	o-Chlorotoluene	mg/kg	100	NS	NS	NA		0.0012	U	NA		0.0016	U
	p-Chlorotoluene	mg/kg	100(5)	NS	NS	NA		0.0012	U	NA		0.0016	U

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)-RCS-2-FILL(8)-DC				GLC-VMF(20)-RCS-2-FILL(14)-DC			
						GLC-VMF(20)-RCS-2-FILL(8)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(8)-DC-VOC(1)		GLC-VMF(20)-RCS-2-FILL(14)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(14)-DC-VOC-3	
						L2052968-03		L2052968-04		L2053491-01		L2053491-02	
						11/30/2020		11/30/2020		12/2/2020		12/2/2020	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
	1,2-Dibromo-3-chloropropane	mg/kg	10	NS	NS	NA		0.0018	U	NA		0.0023	U
	Hexachlorobutadiene	mg/kg	30	NS	NS	NA		0.0024	U	NA		0.0031	U
	Isopropylbenzene	mg/kg	1,000	NS	NS	NA		0.0006	U	NA		0.00078	U
	p-Isopropyltoluene	mg/kg	100	NS	NS	NA		0.0006	U	NA		0.00078	U
	Naphthalene	mg/kg	4	NS	NS	NA		0.0024	U	NA		0.0031	U
	n-Propylbenzene	mg/kg	100	NS	NS	NA		0.0006	U	NA		0.00078	U
	1,2,3-Trichlorobenzene	mg/kg	NS	NS	NS	NA		0.0012	U	NA		0.0016	U
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	NA		0.0012	U	NA		0.0016	U
	1,3,5-Trimethylbenzene	mg/kg	10	NS	NS	NA		0.0012	U	NA		0.0016	U
	1,2,4-Trimethylbenzene	mg/kg	1,000	NS	NS	NA		0.0012	U	NA		0.0016	U
	Diethyl ether	mg/kg	100	NS	NS	NA		0.0012	U	NA		0.0016	U
	Diisopropyl Ether	mg/kg	100	NS	NS	NA		0.0012	U	NA		0.0016	U
	Ethyl-Tert-Butyl-Ether	mg/kg	NS	NS	NS	NA		0.0012	U	NA		0.0016	U
	Tertiary-Amyl Methyl Ether	mg/kg	NS	NS	NS	NA		0.0012	U	NA		0.0016	U
	1,4-Dioxane	mg/kg	0.2	NS	NS	NA		0.048	U	NA		0.062	U
	Total VOCs	mg/kg	NS	4	10	NA		0.0083		NA		0.00057	
SVOCs													
	Acenaphthene	mg/kg	4	NS	NS	0.13	U	NA		0.14	U	NA	
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	0.17	U	NA		0.18	U	NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.07	U	NA		0.076	U	NA	
	Bis(2-chloroethyl)ether	mg/kg	0.7	NS	NS	0.07	U	NA		0.076	U	NA	
	2-Chloronaphthalene	mg/kg	1,000	NS	NS	0.17	U	NA		0.18	U	NA	
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	0.17	U	NA		0.18	U	NA	
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	0.17	U	NA		0.18	U	NA	
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	0.07	U	NA		0.076	U	NA	
	3,3'-Dichlorobenzidine	mg/kg	3	NS	NS	0.17	U	NA		0.18	U	NA	
	2,4-Dinitrotoluene	mg/kg	0.7	NS	NS	0.07	U	NA		0.076	U	NA	
	2,6-Dinitrotoluene	mg/kg	100	NS	NS	0.17	U	NA		0.18	U	NA	
	Azobenzene	mg/kg	50	NS	NS	0.17	U	NA		0.18	U	NA	
	Fluoranthene	mg/kg	1,000	NS	NS	0.67		NA		0.7		NA	
	4-Bromophenyl phenyl ether	mg/kg	100	NS	NS	0.17	U	NA		0.18	U	NA	
	Bis(2-chloroisopropyl)ether	mg/kg	0.7	NS	NS	0.07	U	NA		0.076	U	NA	
	Bis(2-chloroethoxy)methane	mg/kg	500	NS	NS	0.18	U	NA		0.2	U	NA	
	Hexachlorobutadiene	mg/kg	30	NS	NS	0.17	U	NA		0.18	U	NA	
	Hexachloroethane	mg/kg	0.7	NS	NS	0.07	U	NA		0.076	U	NA	
	Isophorone	mg/kg	100	NS	NS	0.15	U	NA		0.16	U	NA	
	Naphthalene	mg/kg	4	NS	NS	0.17	U	NA		0.18	U	NA	
	Nitrobenzene	mg/kg	500	NS	NS	0.15	U	NA		0.16	U	NA	
	Bis(2-ethylhexyl)phthalate	mg/kg	90	NS	NS	0.17	U	NA		0.18	U	NA	
	Butyl benzyl phthalate	mg/kg	100	NS	NS	0.17	U	NA		0.18	U	NA	
	Di-n-butylphthalate	mg/kg	50	NS	NS	0.17	U	NA		0.18	U	NA	
	Di-n-octylphthalate	mg/kg	1,000	NS	NS	0.17	U	NA		0.18	U	NA	
	Diethyl phthalate	mg/kg	10	NS	NS	0.17	U	NA		0.18	U	NA	
	Dimethyl phthalate	mg/kg	0.7	NS	NS	0.07	U	NA		0.076	U	NA	
	Benzo(a)anthracene	mg/kg	7	NS	NS	0.31		NA		0.38		NA	
	Benzo(a)pyrene	mg/kg	2	NS	NS	0.34		NA		0.4		NA	
	Benzo(b)fluoranthene	mg/kg	7	NS	NS	0.4		NA		0.51		NA	
	Benzo(k)fluoranthene	mg/kg	70	NS	NS	0.12		NA		0.16		NA	
	Chrysene	mg/kg	70	NS	NS	0.34		NA		0.42		NA	
	Acenaphthylene	mg/kg	1	NS	NS	0.13	U	NA		0.14	U	NA	
	Anthracene	mg/kg	1,000	NS	NS	0.11		NA		0.12		NA	
	Benzo(ghi)perylene	mg/kg	1,000	NS	NS	0.19		NA		0.25		NA	
	Fluorene	mg/kg	1,000	NS	NS	0.17	U	NA		0.18	U	NA	
	Phenanthrene	mg/kg	10	NS	NS	0.46		NA		0.49		NA	
	Dibenzo(a,h)anthracene	mg/kg	0.7	NS	NS	0.07	U	NA		0.076	U	NA	
	Indeno(1,2,3-cd)pyrene	mg/kg	7	NS	NS	0.2		NA		0.26		NA	
	Pyrene	mg/kg	1,000	NS	NS	0.61		NA		0.64		NA	
	Aniline	mg/kg	1,000	NS	NS	0.2	U	NA		0.22	U	NA	
	4-Chloroaniline	mg/kg	1	NS	NS	0.17	U	NA		0.18	U	NA	
	Dibenzofuran	mg/kg	100	NS	NS	0.17	U	NA		0.18	U	NA	
	2-Methylnaphthalene	mg/kg	0.7	NS	NS	0.076		NA		0.12		NA	

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)-RCS-2-FILL(8)-DC				GLC-VMF(20)-RCS-2-FILL(14)-DC			
						GLC-VMF(20)-RCS-2-FILL(8)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(8)-DC-VOC(1)		GLC-VMF(20)-RCS-2-FILL(14)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(14)-DC-VOC-3	
						Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*		
	Acetophenone	mg/kg	1,000	NS	NS	0.17	U	NA		0.18	U	NA	
	2,4,6-Trichlorophenol	mg/kg	0.7	NS	NS	0.07	U	NA		0.076	U	NA	
	2-Chlorophenol	mg/kg	0.7	NS	NS	0.07	U	NA		0.076	U	NA	
	2,4-Dichlorophenol	mg/kg	0.7	NS	NS	0.07	U	NA		0.076	U	NA	
	2,4-Dimethylphenol	mg/kg	0.7	NS	NS	0.07	U	NA		0.076	U	NA	
	2-Nitrophenol	mg/kg	100	NS	NS	0.36	U	NA		0.39	U	NA	
	4-Nitrophenol	mg/kg	100	NS	NS	0.23	U	NA		0.25	U	NA	
	2,4-Dinitrophenol	mg/kg	3	NS	NS	0.8	U	NA		0.87	U	NA	
	Pentachlorophenol	mg/kg	3	NS	NS	0.33	U	NA		0.36	U	NA	
	Phenol	mg/kg	1	NS	NS	0.17	U	NA		0.18	U	NA	
	2-Methylphenol	mg/kg	500	NS	NS	0.17	U	NA		0.18	U	NA	
	3-Methylphenol/4-Methylphenol	mg/kg	500	NS	NS	0.24	U	NA		0.26	U	NA	
	2,4,5-Trichlorophenol	mg/kg	4	NS	NS	0.17	U	NA		0.18	U	NA	
	Pyridine	mg/kg	500	NS	NS	0.18	U	NA		0.2	U	NA	
	Total SVOCs	mg/kg	NS	100	100	3.826		NA		4.45		NA	
PCBs													
	Aroclor 1016	mg/kg	1	NS	NS	0.168	U	NA		0.0364	U	NA	
	Aroclor 1221	mg/kg	1	NS	NS	0.168	U	NA		0.0364	U	NA	
	Aroclor 1232	mg/kg	1	NS	NS	0.168	U	NA		0.0364	U	NA	
	Aroclor 1242	mg/kg	1	NS	NS	0.168	U	NA		0.0364	U	NA	
	Aroclor 1248	mg/kg	1	NS	NS	0.168	U	NA		0.0364	U	NA	
	Aroclor 1254	mg/kg	1	NS	NS	0.854		NA		0.0917		NA	
	Aroclor 1260	mg/kg	1	NS	NS	0.168	U	NA		0.0364	U	NA	
	Aroclor 1262	mg/kg	1	NS	NS	0.168	U	NA		0.0364	U	NA	
	Aroclor 1268	mg/kg	1	NS	NS	0.168	U	NA		0.0364	U	NA	
	PCBs, Total	mg/kg	1	2	2	0.854		NA		0.0917		NA	
Pesticides													
	Delta-BHC	mg/kg	10	NS	NS	0.00154	U	NA		0.00172	U	NA	
	Lindane	mg/kg	0.003	NS	NS	0.000515	U	NA		0.000574	U	NA	
	Alpha-BHC	mg/kg	50	NS	NS	0.000644	U	NA		0.000718	U	NA	
	Beta-BHC	mg/kg	10	NS	NS	0.00154	U	NA		0.00172	U	NA	
	Heptachlor	mg/kg	0.3	NS	NS	0.000773	U	NA		0.000861	U	NA	
	Aldrin	mg/kg	0.08	NS	NS	0.00154	U	NA		0.00172	U	NA	
	Heptachlor epoxide	mg/kg	0.1	NS	NS	0.0029	U	NA		0.00323	U	NA	
	Endrin	mg/kg	10	NS	NS	0.000644	U	NA		0.000718	U	NA	
	Endrin ketone	mg/kg	NS	NS	NS	0.00154	U	NA		0.00172	U	NA	
	Dieldrin	mg/kg	0.08	NS	NS	0.000966	U	NA		0.00108	U	NA	
	4,4'-DDE	mg/kg	6	NS	NS	0.00154	U	NA		0.00172	U	NA	
	4,4'-DDD	mg/kg	8	NS	NS	0.00676		NA		0.00172	U	NA	
	4,4'-DDT	mg/kg	6	NS	NS	0.0156	IP	NA		0.00323	U	NA	
	Endosulfan I	mg/kg	0.5	NS	NS	0.00154	U	NA		0.00172	U	NA	
	Endosulfan II	mg/kg	0.5	NS	NS	0.00154	U	NA		0.00172	U	NA	
	Endosulfan sulfate	mg/kg	NS	NS	NS	0.000644	U	NA		0.000718	U	NA	
	Methoxychlor	mg/kg	200	NS	NS	0.0029	U	NA		0.00323	U	NA	
	Chlordane	mg/kg	0.7	NS	NS	0.0245	IP	NA		0.0144	U	NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.00154	U	NA		0.00172	U	NA	
Herbicides													
	MCP	mg/kg	NS	NS	NS	3.4	U	NA		3.6	U	NA	
	MCPA	mg/kg	100	NS	NS	3.4	U	NA		3.6	U	NA	
	Dalapon	mg/kg	1,000	NS	NS	0.034	U	NA		0.036	U	NA	
	Dicamba	mg/kg	500	NS	NS	0.034	U	NA		0.036	U	NA	
	Dichloroprop	mg/kg	NS	NS	NS	0.034	U	NA		0.036	U	NA	
	2,4-D	mg/kg	100	NS	NS	0.034	U	NA		0.036	U	NA	
	2,4-DB	mg/kg	100	NS	NS	0.034	U	NA		0.036	U	NA	
	2,4,5-T	mg/kg	100	NS	NS	0.034	U	NA		0.036	U	NA	
	2,4,5-TP (Silvex)	mg/kg	100	NS	NS	0.034	U	NA		0.036	U	NA	

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)-RCS-2-FILL(8)-DC				GLC-VMF(20)-RCS-2-FILL(14)-DC			
						GLC-VMF(20)-RCS-2-FILL(8)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(8)-DC-VOC(1)		GLC-VMF(20)-RCS-2-FILL(14)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(14)-DC-VOC-3	
						L2052968-03		L2052968-04		L2053491-01		L2053491-02	
						11/30/2020		11/30/2020		12/2/2020		12/2/2020	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
TPH													
	TPH (C10-C36)	mg/kg	1,000	2,500	5,000	86.4		NA		112		NA	
Metals, total													
	Antimony	mg/kg	20	NS	NS	2.05	U	NA		2.13	U	NA	
	Arsenic	mg/kg	20	40	40	5.16		NA		5.79		NA	
	Barium	mg/kg	1,000	NS	NS	36		NA		28.7		NA	
	Beryllium	mg/kg	90	NS	NS	0.217		NA		0.213	U	NA	
	Cadmium	mg/kg	70	30	80	0.553		NA		0.549		NA	
	Chromium	mg/kg	100	1,000	1,000	16.2		NA		14.3		NA	
	Lead	mg/kg	200	1,000	2,000	29.5		NA		28.2		NA	
	Mercury	mg/kg	20	10	10	0.093		NA		0.112		NA	
	Nickel	mg/kg	600	NS	NS	13.2		NA		12.2		NA	
	Selenium	mg/kg	400	NS	NS	2.05	U	NA		2.13	U	NA	
	Silver	mg/kg	100	NS	NS	0.41	U	NA		0.425	U	NA	
	Thallium	mg/kg	8	NS	NS	2.05	U	NA		2.13	U	NA	
	Vanadium	mg/kg	400	NS	NS	32.4		NA		29.8		NA	
	Zinc	mg/kg	1,000	NS	NS	53.8		NA		56.3		NA	
General Chemistry													
	Specific Conductance	umhos/cm	NS	4,000	8,000	95		NA		74		NA	
	pH	SU	NS	NS	NS	8.1		NA		8.4		NA	
	Cyanide, Reactive	mg/kg	NS	NS	NS	10	U	NA		10	U	NA	
	Sulfide, Reactive	mg/kg	NS	NS	NS	10	U	NA		10	U	NA	
	Ignitability		NS	NS	NS	NI		NA		NI		NA	

Notes:
mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).
su - Standard unit.
umhos/cm - Micro-mhos per centimeter.
I - The lower value for the two columns has been reported due to obvious interference.
ND - Not detected.
NI - Not ignitable.
NA - Sample not analyzed for the listed analyte.
NS - No MassDEP standards exist for this analyte.
P - The relative percent difference (RPD) between the results for the two columns exceeds the method-specified criteria.
U - Analyte was not detected at specified quantitation limit.
Values in **bold** indicate the analyte was detected.
VOCs - Volatile Organic Compounds.
SVOCs - Semivolatile Organic Compounds.
PCBs - Polychlorinated Biphenyls.
TPH - Total Petroleum Hydrocarbons.
RC - Reportable concentration.
(1) - MassDEP RC for C9-C10 aromatics used.
(2) - Criteria applicable to xylene (total), the sum of the xylene isomers.
(3) - MassDEP RC for Dichloropropane used.
(4) - MassDEP RC for Dichloropropene used.
(5) - MassDEP RC for Chlorotoluene used.
* - Reuse and Disposal of Contaminated Soil at Massachusetts Landfills, MassDEP Policy # COMM-97-001, August 1997.

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)-RCS-2-FILL(13)- DC				GLC-VMF(20)-RCS-2-FILL(25)- DC			
						GLC-VMF(20)- RCS-2-FILL(13)- DC-COMP		GLC-VMF(20)- RCS-2-FILL(13)- DC-VOC-6		GLC-VMF(20)- RCS-2-FILL(25)- DC-COMP		GLC-VMF(20)- RCS-2-FILL(25)- DC-VOC-4	
						L2053491-03		L2053491-04		L2055561-03		L2055561-04	
						12/2/2020		12/2/2020		12/11/2020		12/11/2020	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
VOCs													
	Methylene chloride	mg/kg	0.1	NS	NS	NA		0.0035	U	NA		0.0036	U
	1,1-Dichloroethane	mg/kg	0.4	NS	NS	NA		0.0007	U	NA		0.00073	U
	Chloroform	mg/kg	0.2	NS	NS	NA		0.001	U	NA		0.0011	U
	Carbon tetrachloride	mg/kg	5	NS	NS	NA		0.0007	U	NA		0.00073	U
	1,2-Dichloropropane	mg/kg	0.1	NS	NS	NA		0.0007	U	NA		0.00073	U
	Dibromochloromethane	mg/kg	0.005	NS	NS	NA		0.0007	U	NA		0.00073	U
	1,1,2-Trichloroethane	mg/kg	0.1	NS	NS	NA		0.0007	U	NA		0.00073	U
	Tetrachloroethene	mg/kg	1	NS	NS	NA		0.00035	U	NA		0.00044	
	Chlorobenzene	mg/kg	1	NS	NS	NA		0.00035	U	NA		0.00036	U
	Trichlorofluoromethane	mg/kg	1,000	NS	NS	NA		0.0028	U	NA		0.0029	U
	1,2-Dichloroethane	mg/kg	0.1	NS	NS	NA		0.0007	U	NA		0.00073	U
	1,1,1-Trichloroethane	mg/kg	30	NS	NS	NA		0.00035	U	NA		0.00036	U
	Bromodichloromethane	mg/kg	0.1	NS	NS	NA		0.00035	U	NA		0.00036	U
	trans-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.0007	U	NA		0.00073	U
	cis-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.00035	U	NA		0.00036	U
	1,3-Dichloropropene, Total	mg/kg	0.01	NS	NS	NA		0.00035	U	NA		0.00036	U
	1,1-Dichloropropene	mg/kg	0.01(4)	NS	NS	NA		0.00035	U	NA		0.00036	U
	Bromoform	mg/kg	0.1	NS	NS	NA		0.0028	U	NA		0.0029	U
	1,1,2,2-Tetrachloroethane	mg/kg	0.005	NS	NS	NA		0.00035	U	NA		0.00036	U
	Benzene	mg/kg	2	NS	NS	NA		0.00035	U	NA		0.00036	U
	Toluene	mg/kg	30	NS	NS	NA		0.0007	U	NA		0.00073	U
	Ethylbenzene	mg/kg	40	NS	NS	NA		0.0007	U	NA		0.00073	U
	Chloromethane	mg/kg	100	NS	NS	NA		0.0028	U	NA		0.0029	U
	Bromomethane	mg/kg	0.5	NS	NS	NA		0.0014	U	NA		0.0015	U
	Vinyl chloride	mg/kg	0.7	NS	NS	NA		0.0007	U	NA		0.00073	U
	Chloroethane	mg/kg	100	NS	NS	NA		0.0014	U	NA		0.0015	U
	1,1-Dichloroethene	mg/kg	3	NS	NS	NA		0.0007	U	NA		0.00073	U
	trans-1,2-Dichloroethene	mg/kg	1	NS	NS	NA		0.001	U	NA		0.0011	U
	Trichloroethene	mg/kg	0.3	NS	NS	NA		0.00035	U	NA		0.00036	U
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	NA		0.0014	U	NA		0.0015	U
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	NA		0.0014	U	NA		0.0015	U
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	NA		0.0014	U	NA		0.0015	U
	Methyl tert butyl ether	mg/kg	0.1	NS	NS	NA		0.0014	U	NA		0.0015	U
	p/m-Xylene	mg/kg	100(2)	NS	NS	NA		0.0014	U	NA		0.0015	U
	o-Xylene	mg/kg	100(2)	NS	NS	NA		0.0007	U	NA		0.00073	U
	Xylenes, Total	mg/kg	100	NS	NS	NA		0.0007	U	NA		0.00073	U
	cis-1,2-Dichloroethene	mg/kg	0.1	NS	NS	NA		0.0007	U	NA		0.00073	U
	1,2-Dichloroethene, Total	mg/kg	0.3	NS	NS	NA		0.0007	U	NA		0.00073	U
	Dibromomethane	mg/kg	500	NS	NS	NA		0.0014	U	NA		0.0015	U
	1,2,3-Trichloropropane	mg/kg	100	NS	NS	NA		0.0014	U	NA		0.0015	U
	Styrene	mg/kg	3	NS	NS	NA		0.0007	U	NA		0.00073	U
	Dichlorodifluoromethane	mg/kg	1,000	NS	NS	NA		0.007	U	NA		0.0073	U
	Acetone	mg/kg	6	NS	NS	NA		0.017	U	NA		0.018	U
	Carbon disulfide	mg/kg	100	NS	NS	NA		0.007	U	NA		0.0073	U
	Methyl ethyl ketone	mg/kg	4	NS	NS	NA		0.007	U	NA		0.0073	U
	Methyl isobutyl ketone	mg/kg	0.4	NS	NS	NA		0.007	U	NA		0.0073	U
	2-Hexanone	mg/kg	100	NS	NS	NA		0.007	U	NA		0.0073	U
	Bromochloromethane	mg/kg	NS	NS	NS	NA		0.0014	U	NA		0.0015	U
	Tetrahydrofuran	mg/kg	500	NS	NS	NA		0.0028	U	NA		0.0029	U
	2,2-Dichloropropane	mg/kg	0.1(3)	NS	NS	NA		0.0014	U	NA		0.0015	U
	1,2-Dibromoethane	mg/kg	0.1	NS	NS	NA		0.0007	U	NA		0.00073	U
	1,3-Dichloropropane	mg/kg	500	NS	NS	NA		0.0014	U	NA		0.0015	U
	1,1,1,2-Tetrachloroethane	mg/kg	0.1	NS	NS	NA		0.00035	U	NA		0.00036	U
	Bromobenzene	mg/kg	100	NS	NS	NA		0.0014	U	NA		0.0015	U
	n-Butylbenzene	mg/kg	100(1)	NS	NS	NA		0.0007	U	NA		0.00073	U
	sec-Butylbenzene	mg/kg	100(1)	NS	NS	NA		0.0007	U	NA		0.00073	U
	tert-Butylbenzene	mg/kg	100	NS	NS	NA		0.0014	U	NA		0.0015	U
	o-Chlorotoluene	mg/kg	100	NS	NS	NA		0.0014	U	NA		0.0015	U
	p-Chlorotoluene	mg/kg	100(5)	NS	NS	NA		0.0014	U	NA		0.0015	U

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)-RCS-2-FILL(13)-DC				GLC-VMF(20)-RCS-2-FILL(25)-DC			
						GLC-VMF(20)-RCS-2-FILL(13)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(13)-DC-VOC-6		GLC-VMF(20)-RCS-2-FILL(25)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(25)-DC-VOC-4	
						L2053491-03		L2053491-04		L2055561-03		L2055561-04	
						12/2/2020		12/2/2020		12/11/2020		12/11/2020	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
	1,2-Dibromo-3-chloropropane	mg/kg	10	NS	NS	NA		0.0021	U	NA		0.0022	U
	Hexachlorobutadiene	mg/kg	30	NS	NS	NA		0.0028	U	NA		0.0029	U
	Isopropylbenzene	mg/kg	1,000	NS	NS	NA		0.0007	U	NA		0.00073	U
	p-Isopropyltoluene	mg/kg	100	NS	NS	NA		0.0007	U	NA		0.00073	U
	Naphthalene	mg/kg	4	NS	NS	NA		0.0028	U	NA		0.0029	U
	n-Propylbenzene	mg/kg	100	NS	NS	NA		0.0007	U	NA		0.00073	U
	1,2,3-Trichlorobenzene	mg/kg	NS	NS	NS	NA		0.0014	U	NA		0.0015	U
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	NA		0.0014	U	NA		0.0015	U
	1,3,5-Trimethylbenzene	mg/kg	10	NS	NS	NA		0.0014	U	NA		0.0015	U
	1,2,4-Trimethylbenzene	mg/kg	1,000	NS	NS	NA		0.0014	U	NA		0.0015	U
	Diethyl ether	mg/kg	100	NS	NS	NA		0.0014	U	NA		0.0015	U
	Diisopropyl Ether	mg/kg	100	NS	NS	NA		0.0014	U	NA		0.0015	U
	Ethyl-Tert-Butyl-Ether	mg/kg	NS	NS	NS	NA		0.0014	U	NA		0.0015	U
	Tertiary-Amyl Methyl Ether	mg/kg	NS	NS	NS	NA		0.0014	U	NA		0.0015	U
	1,4-Dioxane	mg/kg	0.2	NS	NS	NA		0.056	U	NA		0.058	U
	Total VOCs	mg/kg	NS	4	10	NA		ND		NA		0.00044	
SVOCs													
	Acenaphthene	mg/kg	4	NS	NS	0.15	U	NA		0.14	U	NA	
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	0.18	U	NA		0.18	U	NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.077	U	NA		0.074	U	NA	
	Bis(2-chloroethyl)ether	mg/kg	0.7	NS	NS	0.077	U	NA		0.074	U	NA	
	2-Chloronaphthalene	mg/kg	1,000	NS	NS	0.18	U	NA		0.18	U	NA	
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	0.18	U	NA		0.18	U	NA	
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	0.18	U	NA		0.18	U	NA	
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	0.077	U	NA		0.074	U	NA	
	3,3'-Dichlorobenzidine	mg/kg	3	NS	NS	0.18	U	NA		0.18	U	NA	
	2,4-Dinitrotoluene	mg/kg	0.7	NS	NS	0.077	U	NA		0.074	U	NA	
	2,6-Dinitrotoluene	mg/kg	100	NS	NS	0.18	U	NA		0.18	U	NA	
	Azobenzene	mg/kg	50	NS	NS	0.18	U	NA		0.18	U	NA	
	Fluoranthene	mg/kg	1,000	NS	NS	0.9		NA		1.3		NA	
	4-Bromophenyl phenyl ether	mg/kg	100	NS	NS	0.18	U	NA		0.18	U	NA	
	Bis(2-chloroisopropyl)ether	mg/kg	0.7	NS	NS	0.077	U	NA		0.074	U	NA	
	Bis(2-chloroethoxy)methane	mg/kg	500	NS	NS	0.2	U	NA		0.19	U	NA	
	Hexachlorobutadiene	mg/kg	30	NS	NS	0.18	U	NA		0.18	U	NA	
	Hexachloroethane	mg/kg	0.7	NS	NS	0.077	U	NA		0.074	U	NA	
	Isophorone	mg/kg	100	NS	NS	0.16	U	NA		0.16	U	NA	
	Naphthalene	mg/kg	4	NS	NS	0.37		NA		0.2		NA	
	Nitrobenzene	mg/kg	500	NS	NS	0.16	U	NA		0.16	U	NA	
	Bis(2-ethylhexyl)phthalate	mg/kg	90	NS	NS	0.37		NA		0.18	U	NA	
	Butyl benzyl phthalate	mg/kg	100	NS	NS	0.18	U	NA		0.18	U	NA	
	Di-n-butylphthalate	mg/kg	50	NS	NS	0.18	U	NA		0.18	U	NA	
	Di-n-octylphthalate	mg/kg	1,000	NS	NS	0.18	U	NA		0.18	U	NA	
	Diethyl phthalate	mg/kg	10	NS	NS	0.18	U	NA		0.18	U	NA	
	Dimethyl phthalate	mg/kg	0.7	NS	NS	0.077	U	NA		0.074	U	NA	
	Benzo(a)anthracene	mg/kg	7	NS	NS	0.48		NA		0.73		NA	
	Benzo(a)pyrene	mg/kg	2	NS	NS	0.48		NA		0.61		NA	
	Benzo(b)fluoranthene	mg/kg	7	NS	NS	0.6		NA		0.82		NA	
	Benzo(k)fluoranthene	mg/kg	70	NS	NS	0.21		NA		0.21		NA	
	Chrysene	mg/kg	70	NS	NS	0.48		NA		0.68		NA	
	Acenaphthylene	mg/kg	1	NS	NS	0.15	U	NA		0.14	U	NA	
	Anthracene	mg/kg	1,000	NS	NS	0.17		NA		0.27		NA	
	Benzo(ghi)perylene	mg/kg	1,000	NS	NS	0.28		NA		0.38		NA	
	Fluorene	mg/kg	1,000	NS	NS	0.18	U	NA		0.18	U	NA	
	Phenanthrene	mg/kg	10	NS	NS	0.67		NA		0.84		NA	
	Dibenzo(a,h)anthracene	mg/kg	0.7	NS	NS	0.077	U	NA		0.092		NA	
	Indeno(1,2,3-cd)pyrene	mg/kg	7	NS	NS	0.31		NA		0.37		NA	
	Pyrene	mg/kg	1,000	NS	NS	0.79		NA		1.2		NA	
	Aniline	mg/kg	1,000	NS	NS	0.22	U	NA		0.21	U	NA	
	4-Chloroaniline	mg/kg	1	NS	NS	0.18	U	NA		0.18	U	NA	
	Dibenzofuran	mg/kg	100	NS	NS	0.18	U	NA		0.18	U	NA	
	2-Methylnaphthalene	mg/kg	0.7	NS	NS	0.2		NA		0.12		NA	

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)-RCS-2-FILL(13)- DC				GLC-VMF(20)-RCS-2-FILL(25)- DC			
						GLC-VMF(20)- RCS-2-FILL(13)- DC-COMP		GLC-VMF(20)- RCS-2-FILL(13)- DC-VOC-6		GLC-VMF(20)- RCS-2-FILL(25)- DC-COMP		GLC-VMF(20)- RCS-2-FILL(25)- DC-VOC-4	
						L2053491-03		L2053491-04		L2055561-03		L2055561-04	
						12/2/2020		12/2/2020		12/11/2020		12/11/2020	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
	Acetophenone	mg/kg	1,000	NS	NS	0.18	U	NA		0.18	U	NA	
	2,4,6-Trichlorophenol	mg/kg	0.7	NS	NS	0.077	U	NA		0.074	U	NA	
	2-Chlorophenol	mg/kg	0.7	NS	NS	0.077	U	NA		0.074	U	NA	
	2,4-Dichlorophenol	mg/kg	0.7	NS	NS	0.077	U	NA		0.074	U	NA	
	2,4-Dimethylphenol	mg/kg	0.7	NS	NS	0.077	U	NA		0.074	U	NA	
	2-Nitrophenol	mg/kg	100	NS	NS	0.4	U	NA		0.38	U	NA	
	4-Nitrophenol	mg/kg	100	NS	NS	0.26	U	NA		0.25	U	NA	
	2,4-Dinitrophenol	mg/kg	3	NS	NS	0.88	U	NA		0.85	U	NA	
	Pentachlorophenol	mg/kg	3	NS	NS	0.37	U	NA		0.35	U	NA	
	Phenol	mg/kg	1	NS	NS	0.18	U	NA		0.18	U	NA	
	2-Methylphenol	mg/kg	500	NS	NS	0.18	U	NA		0.18	U	NA	
	3-Methylphenol/4-Methylphenol	mg/kg	500	NS	NS	0.26	U	NA		0.25	U	NA	
	2,4,5-Trichlorophenol	mg/kg	4	NS	NS	0.18	U	NA		0.18	U	NA	
	Pyridine	mg/kg	500	NS	NS	0.2	U	NA		0.19	U	NA	
	Total SVOCs	mg/kg	NS	100	100	6.31		NA		7.822		NA	
PCBs													
	Aroclor 1016	mg/kg	1	NS	NS	0.0367	U	NA		0.0346	U	NA	
	Aroclor 1221	mg/kg	1	NS	NS	0.0367	U	NA		0.0346	U	NA	
	Aroclor 1232	mg/kg	1	NS	NS	0.0367	U	NA		0.0346	U	NA	
	Aroclor 1242	mg/kg	1	NS	NS	0.0367	U	NA		0.0346	U	NA	
	Aroclor 1248	mg/kg	1	NS	NS	0.0367	U	NA		0.0346	U	NA	
	Aroclor 1254	mg/kg	1	NS	NS	0.359		NA		0.389		NA	
	Aroclor 1260	mg/kg	1	NS	NS	0.0367	U	NA		0.0346	U	NA	
	Aroclor 1262	mg/kg	1	NS	NS	0.0367	U	NA		0.0346	U	NA	
	Aroclor 1268	mg/kg	1	NS	NS	0.0367	U	NA		0.0346	U	NA	
	PCBs, Total	mg/kg	1	2	2	0.359		NA		0.389		NA	
Pesticides													
	Delta-BHC	mg/kg	10	NS	NS	0.00169	U	NA		0.00168	U	NA	
	Lindane	mg/kg	0.003	NS	NS	0.000564	U	NA		0.000559	U	NA	
	Alpha-BHC	mg/kg	50	NS	NS	0.000706	U	NA		0.000699	U	NA	
	Beta-BHC	mg/kg	10	NS	NS	0.00169	U	NA		0.00168	U	NA	
	Heptachlor	mg/kg	0.3	NS	NS	0.000847	U	NA		0.000839	U	NA	
	Aldrin	mg/kg	0.08	NS	NS	0.00169	U	NA		0.00168	U	NA	
	Heptachlor epoxide	mg/kg	0.1	NS	NS	0.00318	U	NA		0.00315	U	NA	
	Endrin	mg/kg	10	NS	NS	0.000706	U	NA		0.000699	U	NA	
	Endrin ketone	mg/kg	NS	NS	NS	0.00169	U	NA		0.00168	U	NA	
	Dieldrin	mg/kg	0.08	NS	NS	0.00106	U	NA		0.00105	U	NA	
	4,4'-DDE	mg/kg	6	NS	NS	0.00169	U	NA		0.00168	U	NA	
	4,4'-DDD	mg/kg	8	NS	NS	0.00169	U	NA		0.00606		NA	
	4,4'-DDT	mg/kg	6	NS	NS	0.00318	U	NA		0.00315	U	NA	
	Endosulfan I	mg/kg	0.5	NS	NS	0.00169	U	NA		0.00168	U	NA	
	Endosulfan II	mg/kg	0.5	NS	NS	0.00169	U	NA		0.00168	U	NA	
	Endosulfan sulfate	mg/kg	NS	NS	NS	0.000706	U	NA		0.000699	U	NA	
	Methoxychlor	mg/kg	200	NS	NS	0.00318	U	NA		0.00315	U	NA	
	Chlordane	mg/kg	0.7	NS	NS	0.0141	U	NA		0.014	U	NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.00169	U	NA		0.00168	U	NA	
Herbicides													
	MCP	mg/kg	NS	NS	NS	3.7	U	NA		3.6	U	NA	
	MCPA	mg/kg	100	NS	NS	3.7	U	NA		3.6	U	NA	
	Dalapon	mg/kg	1,000	NS	NS	0.037	U	NA		0.036	U	NA	
	Dicamba	mg/kg	500	NS	NS	0.037	U	NA		0.036	U	NA	
	Dichloroprop	mg/kg	NS	NS	NS	0.037	U	NA		0.036	U	NA	
	2,4-D	mg/kg	100	NS	NS	0.037	U	NA		0.036	U	NA	
	2,4-DB	mg/kg	100	NS	NS	0.037	U	NA		0.036	U	NA	
	2,4,5-T	mg/kg	100	NS	NS	0.037	U	NA		0.036	U	NA	
	2,4,5-TP (Silvex)	mg/kg	100	NS	NS	0.037	U	NA		0.036	U	NA	

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)-RCS-2-FILL(13)-DC				GLC-VMF(20)-RCS-2-FILL(25)-DC			
						GLC-VMF(20)-RCS-2-FILL(13)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(13)-DC-VOC-6		GLC-VMF(20)-RCS-2-FILL(25)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(25)-DC-VOC-4	
						L2053491-03		L2053491-04		L2055561-03		L2055561-04	
						12/2/2020		12/2/2020		12/11/2020		12/11/2020	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
TPH													
	TPH (C10-C36)	mg/kg	1,000	2,500	5,000	130		NA		59.8		NA	
Metals, total													
	Antimony	mg/kg	20	NS	NS	2.17	U	NA		2.12	U	NA	
	Arsenic	mg/kg	20	40	40	7.58		NA		3.61		NA	
	Barium	mg/kg	1,000	NS	NS	37.3		NA		42.6		NA	
	Beryllium	mg/kg	90	NS	NS	0.217		NA		0.212	U	NA	
	Cadmium	mg/kg	70	30	80	0.596		NA		0.658		NA	
	Chromium	mg/kg	100	1,000	1,000	13.6		NA		19.6		NA	
	Lead	mg/kg	200	1,000	2,000	37.5		NA		27.1		NA	
	Mercury	mg/kg	20	10	10	0.1		NA		0.107		NA	
	Nickel	mg/kg	600	NS	NS	13.5		NA		15.2		NA	
	Selenium	mg/kg	400	NS	NS	2.17	U	NA		2.12	U	NA	
	Silver	mg/kg	100	NS	NS	0.435	U	NA		0.424	U	NA	
	Thallium	mg/kg	8	NS	NS	2.17	U	NA		2.12	U	NA	
	Vanadium	mg/kg	400	NS	NS	32.4		NA		37.4		NA	
	Zinc	mg/kg	1,000	NS	NS	73.1		NA		61.5		NA	
General Chemistry													
	Specific Conductance	umhos/cm	NS	4,000	8,000	82		NA		100		NA	
	pH	SU	NS	NS	NS	7.8		NA		8		NA	
	Cyanide, Reactive	mg/kg	NS	NS	NS	10	U	NA		10	U	NA	
	Sulfide, Reactive	mg/kg	NS	NS	NS	10	U	NA		10	U	NA	
	Ignitability		NS	NS	NS	NI		NA		NI		NA	

Notes:

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

su - Standard unit.

umhos/cm - Micro-mhos per centimeter.

I - The lower value for the two columns has been reported due to obvious interference.

ND - Not detected.

NI - Not ignitable.

NA - Sample not analyzed for the listed analyte.

NS - No MassDEP standards exist for this analyte.

P - The relative percent difference (RPD) between the results for the two columns exceeds the method-specified criteria.

U - Analyte was not detected at specified quantitation limit.

Values in **bold** indicate the analyte was detected.

VOCs - Volatile Organic Compounds.

SVOCs - Semivolatile Organic Compounds.

PCBs - Polychlorinated Biphenyls.

TPH - Total Petroleum Hydrocarbons.

RC - Reportable concentration.

(1) - MassDEP RC for C9-C10 aromatics used.

(2) - Criteria applicable to xylene (total), the sum of the xylene isomers.

(3) - MassDEP RC for Dichloropropane used.

(4) - MassDEP RC for Dichloropropene used.

(5) - MassDEP RC for Chlorotoluene used.

* - Reuse and Disposal of Contaminated Soil at Massachusetts Landfills, MassDEP Policy # COMM-97-001, August 1997.

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-YL21-VAC-121420-DC				GLC-VMF(20)-RCS-2-FILL(29)-DC			
						GLC-YL21-VAC-121420-DC-COMP		GLC-YL21-VAC-121420-DC-VOC-2		GLC-VMF(20)-RCS-2-FILL(29)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(29)-DC-VOC-5	
						L2056554-03		L2056554-04		L2101324-01		L2101324-02	
						12/14/2020		12/14/2020		1/11/2021		1/11/2021	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
VOCs													
	Methylene chloride	mg/kg	0.1	NS	NS	NA		0.0032	U	NA		0.0039	U
	1,1-Dichloroethane	mg/kg	0.4	NS	NS	NA		0.00065	U	NA		0.00078	U
	Chloroform	mg/kg	0.2	NS	NS	NA		0.00097	U	NA		0.0012	U
	Carbon tetrachloride	mg/kg	5	NS	NS	NA		0.00065	U	NA		0.00078	U
	1,2-Dichloropropane	mg/kg	0.1	NS	NS	NA		0.00065	U	NA		0.00078	U
	Dibromochloromethane	mg/kg	0.005	NS	NS	NA		0.00065	U	NA		0.00078	U
	1,1,2-Trichloroethane	mg/kg	0.1	NS	NS	NA		0.00065	U	NA		0.00078	U
	Tetrachloroethene	mg/kg	1	NS	NS	NA		0.012		NA		0.00049	
	Chlorobenzene	mg/kg	1	NS	NS	NA		0.00032	U	NA		0.00039	U
	Trichlorofluoromethane	mg/kg	1,000	NS	NS	NA		0.0026	U	NA		0.0031	U
	1,2-Dichloroethane	mg/kg	0.1	NS	NS	NA		0.00065	U	NA		0.00078	U
	1,1,1-Trichloroethane	mg/kg	30	NS	NS	NA		0.00032	U	NA		0.00039	U
	Bromodichloromethane	mg/kg	0.1	NS	NS	NA		0.00032	U	NA		0.00039	U
	trans-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.00065	U	NA		0.00078	U
	cis-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.00032	U	NA		0.00039	U
	1,3-Dichloropropene, Total	mg/kg	0.01	NS	NS	NA		0.00032	U	NA		0.00039	U
	1,1-Dichloropropene	mg/kg	0.01(4)	NS	NS	NA		0.00032	U	NA		0.00039	U
	Bromoform	mg/kg	0.1	NS	NS	NA		0.0026	U	NA		0.0031	U
	1,1,2,2-Tetrachloroethane	mg/kg	0.005	NS	NS	NA		0.00032	U	NA		0.00039	U
	Benzene	mg/kg	2	NS	NS	NA		0.00032	U	NA		0.00039	U
	Toluene	mg/kg	30	NS	NS	NA		0.00065	U	NA		0.00079	
	Ethylbenzene	mg/kg	40	NS	NS	NA		0.00065	U	NA		0.00078	U
	Chloromethane	mg/kg	100	NS	NS	NA		0.0026	U	NA		0.0031	U
	Bromomethane	mg/kg	0.5	NS	NS	NA		0.0013	U	NA		0.0016	U
	Vinyl chloride	mg/kg	0.7	NS	NS	NA		0.00065	U	NA		0.00078	U
	Chloroethane	mg/kg	100	NS	NS	NA		0.0013	U	NA		0.0016	U
	1,1-Dichloroethene	mg/kg	3	NS	NS	NA		0.00065	U	NA		0.00078	U
	trans-1,2-Dichloroethene	mg/kg	1	NS	NS	NA		0.00097	U	NA		0.0012	U
	Trichloroethene	mg/kg	0.3	NS	NS	NA		0.0015		NA		0.00039	U
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	NA		0.0013	U	NA		0.0016	U
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	NA		0.0013	U	NA		0.0016	U
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	NA		0.0013	U	NA		0.0016	U
	Methyl tert butyl ether	mg/kg	0.1	NS	NS	NA		0.0013	U	NA		0.0016	U
	p/m-Xylene	mg/kg	100(2)	NS	NS	NA		0.0013	U	NA		0.0016	U
	o-Xylene	mg/kg	100(2)	NS	NS	NA		0.00065	U	NA		0.00078	U
	Xylenes, Total	mg/kg	100	NS	NS	NA		0.00065	U	NA		0.00078	U
	cis-1,2-Dichloroethene	mg/kg	0.1	NS	NS	NA		0.0016		NA		0.00078	U
	1,2-Dichloroethene, Total	mg/kg	0.3	NS	NS	NA		0.0016		NA		0.00078	U
	Dibromomethane	mg/kg	500	NS	NS	NA		0.0013	U	NA		0.0016	U
	1,2,3-Trichloropropane	mg/kg	100	NS	NS	NA		0.0013	U	NA		0.0016	U
	Styrene	mg/kg	3	NS	NS	NA		0.00065	U	NA		0.00078	U
	Dichlorodifluoromethane	mg/kg	1,000	NS	NS	NA		0.0065	U	NA		0.0078	U
	Acetone	mg/kg	6	NS	NS	NA		0.021		NA		0.022	
	Carbon disulfide	mg/kg	100	NS	NS	NA		0.0065	U	NA		0.0078	U
	Methyl ethyl ketone	mg/kg	4	NS	NS	NA		0.0065	U	NA		0.0078	U
	Methyl isobutyl ketone	mg/kg	0.4	NS	NS	NA		0.0065	U	NA		0.0078	U
	2-Hexanone	mg/kg	100	NS	NS	NA		0.0065	U	NA		0.0078	U
	Bromochloromethane	mg/kg	NS	NS	NS	NA		0.0013	U	NA		0.0016	U
	Tetrahydrofuran	mg/kg	500	NS	NS	NA		0.0026	U	NA		0.0031	U
	2,2-Dichloropropane	mg/kg	0.1(3)	NS	NS	NA		0.0013	U	NA		0.0016	U
	1,2-Dibromoethane	mg/kg	0.1	NS	NS	NA		0.00065	U	NA		0.00078	U
	1,3-Dichloropropane	mg/kg	500	NS	NS	NA		0.0013	U	NA		0.0016	U
	1,1,1,2-Tetrachloroethane	mg/kg	0.1	NS	NS	NA		0.00032	U	NA		0.00039	U
	Bromobenzene	mg/kg	100	NS	NS	NA		0.0013	U	NA		0.0016	U
	n-Butylbenzene	mg/kg	100(1)	NS	NS	NA		0.00065	U	NA		0.00078	U
	sec-Butylbenzene	mg/kg	100(1)	NS	NS	NA		0.00065	U	NA		0.00078	U
	tert-Butylbenzene	mg/kg	100	NS	NS	NA		0.0013	U	NA		0.0016	U
	o-Chlorotoluene	mg/kg	100	NS	NS	NA		0.0013	U	NA		0.0016	U
	p-Chlorotoluene	mg/kg	100(5)	NS	NS	NA		0.0013	U	NA		0.0016	U

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-YL21-VAC-121420-DC				GLC-VMF(20)-RCS-2-FILL(29)-DC			
						GLC-YL21-VAC-121420-DC-COMP		GLC-YL21-VAC-121420-DC-VOC-2		GLC-VMF(20)-RCS-2-FILL(29)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(29)-DC-VOC-5	
						L2056554-03		L2056554-04		L2101324-01		L2101324-02	
						12/14/2020		12/14/2020		1/11/2021		1/11/2021	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
	1,2-Dibromo-3-chloropropane	mg/kg	10	NS	NS	NA		0.0019	U	NA		0.0023	U
	Hexachlorobutadiene	mg/kg	30	NS	NS	NA		0.0026	U	NA		0.0031	U
	Isopropylbenzene	mg/kg	1,000	NS	NS	NA		0.00065	U	NA		0.00078	U
	p-Isopropyltoluene	mg/kg	100	NS	NS	NA		0.00065	U	NA		0.00078	U
	Naphthalene	mg/kg	4	NS	NS	NA		0.0026	U	NA		0.0031	U
	n-Propylbenzene	mg/kg	100	NS	NS	NA		0.00065	U	NA		0.00078	U
	1,2,3-Trichlorobenzene	mg/kg	NS	NS	NS	NA		0.0013	U	NA		0.0016	U
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	NA		0.0013	U	NA		0.0016	U
	1,3,5-Trimethylbenzene	mg/kg	10	NS	NS	NA		0.0013	U	NA		0.0016	U
	1,2,4-Trimethylbenzene	mg/kg	1,000	NS	NS	NA		0.0013	U	NA		0.0016	U
	Diethyl ether	mg/kg	100	NS	NS	NA		0.0013	U	NA		0.0016	U
	Diisopropyl Ether	mg/kg	100	NS	NS	NA		0.0013	U	NA		0.0016	U
	Ethyl-Tert-Butyl-Ether	mg/kg	NS	NS	NS	NA		0.0013	U	NA		0.0016	U
	Tertiary-Amyl Methyl Ether	mg/kg	NS	NS	NS	NA		0.0013	U	NA		0.0016	U
	1,4-Dioxane	mg/kg	0.2	NS	NS	NA		0.052	U	NA		0.062	U
	Total VOCs	mg/kg	NS	4	10	NA		0.0361		NA		0.02328	
SVOCs													
	Acenaphthene	mg/kg	4	NS	NS	0.14	U	NA		0.14	U	NA	
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	0.18	U	NA		0.18	U	NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.075	U	NA		0.074	U	NA	
	Bis(2-chloroethyl)ether	mg/kg	0.7	NS	NS	0.075	U	NA		0.074	U	NA	
	2-Chloronaphthalene	mg/kg	1,000	NS	NS	0.18	U	NA		0.18	U	NA	
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	0.18	U	NA		0.18	U	NA	
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	0.18	U	NA		0.18	U	NA	
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	0.075	U	NA		0.074	U	NA	
	3,3'-Dichlorobenzidine	mg/kg	3	NS	NS	0.18	U	NA		0.18	U	NA	
	2,4-Dinitrotoluene	mg/kg	0.7	NS	NS	0.075	U	NA		0.074	U	NA	
	2,6-Dinitrotoluene	mg/kg	100	NS	NS	0.18	U	NA		0.18	U	NA	
	Azobenzene	mg/kg	50	NS	NS	0.18	U	NA		0.18	U	NA	
	Fluoranthene	mg/kg	1,000	NS	NS	1.2		NA		0.29		NA	
	4-Bromophenyl phenyl ether	mg/kg	100	NS	NS	0.18	U	NA		0.18	U	NA	
	Bis(2-chloroisopropyl)ether	mg/kg	0.7	NS	NS	0.075	U	NA		0.074	U	NA	
	Bis(2-chloroethoxy)methane	mg/kg	500	NS	NS	0.19	U	NA		0.19	U	NA	
	Hexachlorobutadiene	mg/kg	30	NS	NS	0.18	U	NA		0.18	U	NA	
	Hexachloroethane	mg/kg	0.7	NS	NS	0.075	U	NA		0.074	U	NA	
	Isophorone	mg/kg	100	NS	NS	0.16	U	NA		0.16	U	NA	
	Naphthalene	mg/kg	4	NS	NS	0.18	U	NA		0.18	U	NA	
	Nitrobenzene	mg/kg	500	NS	NS	0.16	U	NA		0.16	U	NA	
	Bis(2-ethylhexyl)phthalate	mg/kg	90	NS	NS	0.29		NA		0.18	U	NA	
	Butyl benzyl phthalate	mg/kg	100	NS	NS	0.18	U	NA		0.18	U	NA	
	Di-n-butylphthalate	mg/kg	50	NS	NS	0.18	U	NA		0.18	U	NA	
	Di-n-octylphthalate	mg/kg	1,000	NS	NS	0.18	U	NA		0.18	U	NA	
	Diethyl phthalate	mg/kg	10	NS	NS	0.18	U	NA		0.18	U	NA	
	Dimethyl phthalate	mg/kg	0.7	NS	NS	0.075	U	NA		0.074	U	NA	
	Benzo(a)anthracene	mg/kg	7	NS	NS	0.54		NA		0.16		NA	
	Benzo(a)pyrene	mg/kg	2	NS	NS	0.56		NA		0.14	U	NA	
	Benzo(b)fluoranthene	mg/kg	7	NS	NS	0.74		NA		0.15		NA	
	Benzo(k)fluoranthene	mg/kg	70	NS	NS	0.24		NA		0.1	U	NA	
	Chrysene	mg/kg	70	NS	NS	0.6		NA		0.15		NA	
	Acenaphthylene	mg/kg	1	NS	NS	0.14	U	NA		0.14	U	NA	
	Anthracene	mg/kg	1,000	NS	NS	0.16		NA		0.1	U	NA	
	Benzo(ghi)perylene	mg/kg	1,000	NS	NS	0.35		NA		0.14	U	NA	
	Fluorene	mg/kg	1,000	NS	NS	0.18	U	NA		0.18	U	NA	
	Phenanthrene	mg/kg	10	NS	NS	0.68		NA		0.22		NA	
	Dibenzo(a,h)anthracene	mg/kg	0.7	NS	NS	0.084		NA		0.074	U	NA	
	Indeno(1,2,3-cd)pyrene	mg/kg	7	NS	NS	0.38		NA		0.14	U	NA	
	Pyrene	mg/kg	1,000	NS	NS	1		NA		0.26		NA	
	Aniline	mg/kg	1,000	NS	NS	0.22	U	NA		0.21	U	NA	
	4-Chloroaniline	mg/kg	1	NS	NS	0.18	U	NA		0.18	U	NA	
	Dibenzofuran	mg/kg	100	NS	NS	0.18	U	NA		0.18	U	NA	
	2-Methylnaphthalene	mg/kg	0.7	NS	NS	0.075	U	NA		0.074	U	NA	

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-YL21-VAC-121420-DC				GLC-VMF(20)-RCS-2-FILL(29)-DC			
						GLC-YL21-VAC-121420-DC-COMP		GLC-YL21-VAC-121420-DC-VOC-2		GLC-VMF(20)-RCS-2-FILL(29)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(29)-DC-VOC-5	
						L2056554-03		L2056554-04		L2101324-01		L2101324-02	
						12/14/2020		12/14/2020		1/11/2021		1/11/2021	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
	Acetophenone	mg/kg	1,000	NS	NS	0.18	U	NA		0.18	U	NA	
	2,4,6-Trichlorophenol	mg/kg	0.7	NS	NS	0.075	U	NA		0.074	U	NA	
	2-Chlorophenol	mg/kg	0.7	NS	NS	0.075	U	NA		0.074	U	NA	
	2,4-Dichlorophenol	mg/kg	0.7	NS	NS	0.075	U	NA		0.074	U	NA	
	2,4-Dimethylphenol	mg/kg	0.7	NS	NS	0.075	U	NA		0.074	U	NA	
	2-Nitrophenol	mg/kg	100	NS	NS	0.39	U	NA		0.38	U	NA	
	4-Nitrophenol	mg/kg	100	NS	NS	0.25	U	NA		0.25	U	NA	
	2,4-Dinitrophenol	mg/kg	3	NS	NS	0.86	U	NA		0.85	U	NA	
	Pentachlorophenol	mg/kg	3	NS	NS	0.36	U	NA		0.35	U	NA	
	Phenol	mg/kg	1	NS	NS	0.18	U	NA		0.18	U	NA	
	2-Methylphenol	mg/kg	500	NS	NS	0.18	U	NA		0.18	U	NA	
	3-Methylphenol/4-Methylphenol	mg/kg	500	NS	NS	0.26	U	NA		0.25	U	NA	
	2,4,5-Trichlorophenol	mg/kg	4	NS	NS	0.18	U	NA		0.18	U	NA	
	Pyridine	mg/kg	500	NS	NS	0.19	U	NA		0.19	U	NA	
	Total SVOCs	mg/kg	NS	100	100	6.824		NA		1.23		NA	
PCBs													
	Aroclor 1016	mg/kg	1	NS	NS	0.0368	U	NA		0.0352	U	NA	
	Aroclor 1221	mg/kg	1	NS	NS	0.0368	U	NA		0.0352	U	NA	
	Aroclor 1232	mg/kg	1	NS	NS	0.0368	U	NA		0.0352	U	NA	
	Aroclor 1242	mg/kg	1	NS	NS	0.0368	U	NA		0.0352	U	NA	
	Aroclor 1248	mg/kg	1	NS	NS	0.0368	U	NA		0.0352	U	NA	
	Aroclor 1254	mg/kg	1	NS	NS	0.0368	U	NA		0.0748		NA	
	Aroclor 1260	mg/kg	1	NS	NS	0.0368	U	NA		0.0352	U	NA	
	Aroclor 1262	mg/kg	1	NS	NS	0.0368	U	NA		0.0352	U	NA	
	Aroclor 1268	mg/kg	1	NS	NS	0.0368	U	NA		0.0352	U	NA	
	PCBs, Total	mg/kg	1	2	2	0.0368	U	NA		0.0748		NA	
Pesticides													
	Delta-BHC	mg/kg	10	NS	NS	0.00175	U	NA		0.00161	U	NA	
	Lindane	mg/kg	0.003	NS	NS	0.000582	U	NA		0.000537	U	NA	
	Alpha-BHC	mg/kg	50	NS	NS	0.000728	U	NA		0.000672	U	NA	
	Beta-BHC	mg/kg	10	NS	NS	0.00175	U	NA		0.00161	U	NA	
	Heptachlor	mg/kg	0.3	NS	NS	0.000873	U	NA		0.000806	U	NA	
	Aldrin	mg/kg	0.08	NS	NS	0.00175	U	NA		0.00161	U	NA	
	Heptachlor epoxide	mg/kg	0.1	NS	NS	0.00327	U	NA		0.00302	U	NA	
	Endrin	mg/kg	10	NS	NS	0.000728	U	NA		0.000672	U	NA	
	Endrin ketone	mg/kg	NS	NS	NS	0.00175	U	NA		0.00161	U	NA	
	Dieldrin	mg/kg	0.08	NS	NS	0.00109	U	NA		0.00101	U	NA	
	4,4'-DDE	mg/kg	6	NS	NS	0.00175	U	NA		0.00265		NA	
	4,4'-DDD	mg/kg	8	NS	NS	0.00299	P	NA		0.0025		NA	
	4,4'-DDT	mg/kg	6	NS	NS	0.00328	P	NA		0.0103	IP	NA	
	Endosulfan I	mg/kg	0.5	NS	NS	0.00175	U	NA		0.00161	U	NA	
	Endosulfan II	mg/kg	0.5	NS	NS	0.00175	U	NA		0.00161	U	NA	
	Endosulfan sulfate	mg/kg	NS	NS	NS	0.000728	U	NA		0.000672	U	NA	
	Methoxychlor	mg/kg	200	NS	NS	0.00327	U	NA		0.00302	U	NA	
	Chlordane	mg/kg	0.7	NS	NS	0.0146	U	NA		0.0134	U	NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.00175	U	NA		0.00161	U	NA	
Herbicides													
	MCP	mg/kg	NS	NS	NS	3.7	U	NA		3.5	U	NA	
	MCPA	mg/kg	100	NS	NS	3.7	U	NA		3.5	U	NA	
	Dalapon	mg/kg	1,000	NS	NS	0.037	U	NA		0.035	U	NA	
	Dicamba	mg/kg	500	NS	NS	0.037	U	NA		0.035	U	NA	
	Dichloroprop	mg/kg	NS	NS	NS	0.037	U	NA		0.035	U	NA	
	2,4-D	mg/kg	100	NS	NS	0.037	U	NA		0.035	U	NA	
	2,4-DB	mg/kg	100	NS	NS	0.037	U	NA		0.035	U	NA	
	2,4,5-T	mg/kg	100	NS	NS	0.037	U	NA		0.035	U	NA	
	2,4,5-TP (Silvex)	mg/kg	100	NS	NS	0.037	U	NA		0.035	U	NA	

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-YL21-VAC-121420-DC				GLC-VMF(20)-RCS-2-FILL(29)-DC			
						GLC-YL21-VAC-121420-DC-COMP		GLC-YL21-VAC-121420-DC-VOC-2		GLC-VMF(20)-RCS-2-FILL(29)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(29)-DC-VOC-5	
						L2056554-03		L2056554-04		L2101324-01		L2101324-02	
						12/14/2020		12/14/2020		1/11/2021		1/11/2021	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
TPH													
	TPH (C10-C36)	mg/kg	1,000	2,500	5,000	164		NA		48		NA	
Metals, total													
	Antimony	mg/kg	20	NS	NS	2.14	U	NA		2.07	U	NA	
	Arsenic	mg/kg	20	40	40	4.2		NA		5.32		NA	
	Barium	mg/kg	1,000	NS	NS	26.8		NA		28		NA	
	Beryllium	mg/kg	90	NS	NS	0.214	U	NA		0.249		NA	
	Cadmium	mg/kg	70	30	80	0.582		NA		0.431		NA	
	Chromium	mg/kg	100	1,000	1,000	22.4		NA		11		NA	
	Lead	mg/kg	200	1,000	2,000	40		NA		20.3		NA	
	Mercury	mg/kg	20	10	10	0.077	U	NA		0.079	U	NA	
	Nickel	mg/kg	600	NS	NS	12.4		NA		9.76		NA	
	Selenium	mg/kg	400	NS	NS	2.14	U	NA		2.07	U	NA	
	Silver	mg/kg	100	NS	NS	0.428	U	NA		0.415	U	NA	
	Thallium	mg/kg	8	NS	NS	2.14	U	NA		2.07	U	NA	
	Vanadium	mg/kg	400	NS	NS	35.1		NA		21.1		NA	
	Zinc	mg/kg	1,000	NS	NS	60.9		NA		38.6		NA	
General Chemistry													
	Specific Conductance	umhos/cm	NS	4,000	8,000	58		NA		78		NA	
	pH	SU	NS	NS	NS	8.4		NA		8.6		NA	
	Cyanide, Reactive	mg/kg	NS	NS	NS	10	U	NA		10	U	NA	
	Sulfide, Reactive	mg/kg	NS	NS	NS	10	U	NA		10	U	NA	
	Ignitability		NS	NS	NS	NI		NA		NI		NA	

Notes:
mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).
su - Standard unit.
umhos/cm - Micro-mhos per centimeter.
I - The lower value for the two columns has been reported due to obvious interference.
ND - Not detected.
NI - Not ignitable.
NA - Sample not analyzed for the listed analyte.
NS - No MassDEP standards exist for this analyte.
P - The relative percent difference (RPD) between the results for the two columns exceeds the method-specified criteria.
U - Analyte was not detected at specified quantitation limit.
Values in **bold** indicate the analyte was detected.
VOCs - Volatile Organic Compounds.
SVOCs - Semivolatile Organic Compounds.
PCBs - Polychlorinated Biphenyls.
TPH - Total Petroleum Hydrocarbons.
RC - Reportable concentration.
(1) - MassDEP RC for C9-C10 aromatics used.
(2) - Criteria applicable to xylene (total), the sum of the xylene isomers.
(3) - MassDEP RC for Dichloropropane used.
(4) - MassDEP RC for Dichloropropene used.
(5) - MassDEP RC for Chlorotoluene used.
* - Reuse and Disposal of Contaminated Soil at Massachusetts Landfills, MassDEP Policy # COMM-97-001, August 1997.

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)-RCS-2-FILL(30)- DC				GLC-VMF(48)-RCS-2-FILL(21)- DC			
						GLC-VMF(20)- RCS-2-FILL(30)- DC-COMP		GLC-VMF(20)- RCS-2-FILL(30)- DC-VOC-4		GLC-VMF(48)- RCS-2-FILL(21)- DC-COMP		GLC-VMF(48)- RCS-2-FILL(21)- DC-VOC-7	
						L2101324-03		L2101324-04		L2101324-09		L2101324-10	
						1/11/2021		1/11/2021		1/11/2021		1/11/2021	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
VOCs													
	Methylene chloride	mg/kg	0.1	NS	NS	NA		0.0037	U	NA		0.0038	U
	1,1-Dichloroethane	mg/kg	0.4	NS	NS	NA		0.00075	U	NA		0.00076	U
	Chloroform	mg/kg	0.2	NS	NS	NA		0.0011	U	NA		0.0011	U
	Carbon tetrachloride	mg/kg	5	NS	NS	NA		0.00075	U	NA		0.00076	U
	1,2-Dichloropropane	mg/kg	0.1	NS	NS	NA		0.00075	U	NA		0.00076	U
	Dibromochloromethane	mg/kg	0.005	NS	NS	NA		0.00075	U	NA		0.00076	U
	1,1,2-Trichloroethane	mg/kg	0.1	NS	NS	NA		0.00075	U	NA		0.00076	U
	Tetrachloroethene	mg/kg	1	NS	NS	NA		0.00087		NA		0.00067	
	Chlorobenzene	mg/kg	1	NS	NS	NA		0.00037	U	NA		0.00038	U
	Trichlorofluoromethane	mg/kg	1,000	NS	NS	NA		0.003	U	NA		0.003	U
	1,2-Dichloroethane	mg/kg	0.1	NS	NS	NA		0.00075	U	NA		0.00076	U
	1,1,1-Trichloroethane	mg/kg	30	NS	NS	NA		0.00037	U	NA		0.00038	U
	Bromodichloromethane	mg/kg	0.1	NS	NS	NA		0.00037	U	NA		0.00038	U
	trans-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.00075	U	NA		0.00076	U
	cis-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.00037	U	NA		0.00038	U
	1,3-Dichloropropene, Total	mg/kg	0.01	NS	NS	NA		0.00037	U	NA		0.00038	U
	1,1-Dichloropropene	mg/kg	0.01(4)	NS	NS	NA		0.00037	U	NA		0.00038	U
	Bromoform	mg/kg	0.1	NS	NS	NA		0.003	U	NA		0.003	U
	1,1,2,2-Tetrachloroethane	mg/kg	0.005	NS	NS	NA		0.00037	U	NA		0.00038	U
	Benzene	mg/kg	2	NS	NS	NA		0.00037	U	NA		0.00038	U
	Toluene	mg/kg	30	NS	NS	NA		0.00089		NA		0.00076	U
	Ethylbenzene	mg/kg	40	NS	NS	NA		0.00075	U	NA		0.00076	U
	Chloromethane	mg/kg	100	NS	NS	NA		0.003	U	NA		0.003	U
	Bromomethane	mg/kg	0.5	NS	NS	NA		0.0015	U	NA		0.0015	U
	Vinyl chloride	mg/kg	0.7	NS	NS	NA		0.00075	U	NA		0.00076	U
	Chloroethane	mg/kg	100	NS	NS	NA		0.0015	U	NA		0.0015	U
	1,1-Dichloroethene	mg/kg	3	NS	NS	NA		0.00075	U	NA		0.00076	U
	trans-1,2-Dichloroethene	mg/kg	1	NS	NS	NA		0.0011	U	NA		0.0011	U
	Trichloroethene	mg/kg	0.3	NS	NS	NA		0.00037	U	NA		0.00038	U
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	NA		0.0015	U	NA		0.0015	U
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	NA		0.0015	U	NA		0.0015	U
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	NA		0.0015	U	NA		0.0015	U
	Methyl tert butyl ether	mg/kg	0.1	NS	NS	NA		0.0015	U	NA		0.0015	U
	p/m-Xylene	mg/kg	100(2)	NS	NS	NA		0.0015	U	NA		0.0015	U
	o-Xylene	mg/kg	100(2)	NS	NS	NA		0.00075	U	NA		0.00076	U
	Xylenes, Total	mg/kg	100	NS	NS	NA		0.00075	U	NA		0.00076	U
	cis-1,2-Dichloroethene	mg/kg	0.1	NS	NS	NA		0.00075	U	NA		0.00076	U
	1,2-Dichloroethene, Total	mg/kg	0.3	NS	NS	NA		0.00075	U	NA		0.00076	U
	Dibromomethane	mg/kg	500	NS	NS	NA		0.0015	U	NA		0.0015	U
	1,2,3-Trichloropropane	mg/kg	100	NS	NS	NA		0.0015	U	NA		0.0015	U
	Styrene	mg/kg	3	NS	NS	NA		0.00075	U	NA		0.00076	U
	Dichlorodifluoromethane	mg/kg	1,000	NS	NS	NA		0.0075	U	NA		0.0076	U
	Acetone	mg/kg	6	NS	NS	NA		0.045		NA		0.019	U
	Carbon disulfide	mg/kg	100	NS	NS	NA		0.0075	U	NA		0.0076	U
	Methyl ethyl ketone	mg/kg	4	NS	NS	NA		0.0075	U	NA		0.0076	U
	Methyl isobutyl ketone	mg/kg	0.4	NS	NS	NA		0.0075	U	NA		0.0076	U
	2-Hexanone	mg/kg	100	NS	NS	NA		0.0075	U	NA		0.0076	U
	Bromochloromethane	mg/kg	NS	NS	NS	NA		0.0015	U	NA		0.0015	U
	Tetrahydrofuran	mg/kg	500	NS	NS	NA		0.003	U	NA		0.003	U
	2,2-Dichloropropane	mg/kg	0.1(3)	NS	NS	NA		0.0015	U	NA		0.0015	U
	1,2-Dibromoethane	mg/kg	0.1	NS	NS	NA		0.00075	U	NA		0.00076	U
	1,3-Dichloropropane	mg/kg	500	NS	NS	NA		0.0015	U	NA		0.0015	U
	1,1,1,2-Tetrachloroethane	mg/kg	0.1	NS	NS	NA		0.00037	U	NA		0.00038	U
	Bromobenzene	mg/kg	100	NS	NS	NA		0.0015	U	NA		0.0015	U
	n-Butylbenzene	mg/kg	100(1)	NS	NS	NA		0.00075	U	NA		0.00076	U
	sec-Butylbenzene	mg/kg	100(1)	NS	NS	NA		0.00075	U	NA		0.00076	U
	tert-Butylbenzene	mg/kg	100	NS	NS	NA		0.0015	U	NA		0.0015	U
	o-Chlorotoluene	mg/kg	100	NS	NS	NA		0.0015	U	NA		0.0015	U
	p-Chlorotoluene	mg/kg	100(5)	NS	NS	NA		0.0015	U	NA		0.0015	U

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)-RCS-2-FILL(30)-DC				GLC-VMF(48)-RCS-2-FILL(21)-DC			
						GLC-VMF(20)-RCS-2-FILL(30)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(30)-DC-VOC-4		GLC-VMF(48)-RCS-2-FILL(21)-DC-COMP		GLC-VMF(48)-RCS-2-FILL(21)-DC-VOC-7	
						L2101324-03		L2101324-04		L2101324-09		L2101324-10	
						1/11/2021		1/11/2021		1/11/2021		1/11/2021	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
	1,2-Dibromo-3-chloropropane	mg/kg	10	NS	NS	NA		0.0022	U	NA		0.0023	U
	Hexachlorobutadiene	mg/kg	30	NS	NS	NA		0.003	U	NA		0.003	U
	Isopropylbenzene	mg/kg	1,000	NS	NS	NA		0.00075	U	NA		0.00076	U
	p-Isopropyltoluene	mg/kg	100	NS	NS	NA		0.00075	U	NA		0.00076	U
	Naphthalene	mg/kg	4	NS	NS	NA		0.003	U	NA		0.003	U
	n-Propylbenzene	mg/kg	100	NS	NS	NA		0.00075	U	NA		0.00076	U
	1,2,3-Trichlorobenzene	mg/kg	NS	NS	NS	NA		0.0015	U	NA		0.0015	U
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	NA		0.0015	U	NA		0.0015	U
	1,3,5-Trimethylbenzene	mg/kg	10	NS	NS	NA		0.0015	U	NA		0.0015	U
	1,2,4-Trimethylbenzene	mg/kg	1,000	NS	NS	NA		0.0015	U	NA		0.0015	U
	Diethyl ether	mg/kg	100	NS	NS	NA		0.0015	U	NA		0.0015	U
	Diisopropyl Ether	mg/kg	100	NS	NS	NA		0.0015	U	NA		0.0015	U
	Ethyl-Tert-Butyl-Ether	mg/kg	NS	NS	NS	NA		0.0015	U	NA		0.0015	U
	Tertiary-Amyl Methyl Ether	mg/kg	NS	NS	NS	NA		0.0015	U	NA		0.0015	U
	1,4-Dioxane	mg/kg	0.2	NS	NS	NA		0.06	U	NA		0.061	U
	Total VOCs	mg/kg	NS	4	10	NA		0.04676		NA		0.00067	
SVOCs													
	Acenaphthene	mg/kg	4	NS	NS	0.14	U	NA		0.14	U	NA	
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	0.18	U	NA		0.17	U	NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.074	U	NA		0.072	U	NA	
	Bis(2-chloroethyl)ether	mg/kg	0.7	NS	NS	0.074	U	NA		0.072	U	NA	
	2-Chloronaphthalene	mg/kg	1,000	NS	NS	0.18	U	NA		0.17	U	NA	
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	0.18	U	NA		0.17	U	NA	
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	0.18	U	NA		0.17	U	NA	
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	0.074	U	NA		0.072	U	NA	
	3,3'-Dichlorobenzidine	mg/kg	3	NS	NS	0.18	U	NA		0.17	U	NA	
	2,4-Dinitrotoluene	mg/kg	0.7	NS	NS	0.074	U	NA		0.072	U	NA	
	2,6-Dinitrotoluene	mg/kg	100	NS	NS	0.18	U	NA		0.17	U	NA	
	Azobenzene	mg/kg	50	NS	NS	0.18	U	NA		0.17	U	NA	
	Fluoranthene	mg/kg	1,000	NS	NS	0.66		NA		0.87		NA	
	4-Bromophenyl phenyl ether	mg/kg	100	NS	NS	0.18	U	NA		0.17	U	NA	
	Bis(2-chloroisopropyl)ether	mg/kg	0.7	NS	NS	0.074	U	NA		0.072	U	NA	
	Bis(2-chloroethoxy)methane	mg/kg	500	NS	NS	0.19	U	NA		0.18	U	NA	
	Hexachlorobutadiene	mg/kg	30	NS	NS	0.18	U	NA		0.17	U	NA	
	Hexachloroethane	mg/kg	0.7	NS	NS	0.074	U	NA		0.072	U	NA	
	Isophorone	mg/kg	100	NS	NS	0.16	U	NA		0.15	U	NA	
	Naphthalene	mg/kg	4	NS	NS	0.18	U	NA		0.17	U	NA	
	Nitrobenzene	mg/kg	500	NS	NS	0.16	U	NA		0.15	U	NA	
	Bis(2-ethylhexyl)phthalate	mg/kg	90	NS	NS	0.18	U	NA		0.17	U	NA	
	Butyl benzyl phthalate	mg/kg	100	NS	NS	0.18	U	NA		0.17	U	NA	
	Di-n-butylphthalate	mg/kg	50	NS	NS	0.18	U	NA		0.17	U	NA	
	Di-n-octylphthalate	mg/kg	1,000	NS	NS	0.18	U	NA		0.17	U	NA	
	Diethyl phthalate	mg/kg	10	NS	NS	0.18	U	NA		0.17	U	NA	
	Dimethyl phthalate	mg/kg	0.7	NS	NS	0.074	U	NA		0.072	U	NA	
	Benzo(a)anthracene	mg/kg	7	NS	NS	0.38		NA		0.38		NA	
	Benzo(a)pyrene	mg/kg	2	NS	NS	0.28		NA		0.34		NA	
	Benzo(b)fluoranthene	mg/kg	7	NS	NS	0.37		NA		0.46		NA	
	Benzo(k)fluoranthene	mg/kg	70	NS	NS	0.13		NA		0.15		NA	
	Chrysene	mg/kg	70	NS	NS	0.34		NA		0.42		NA	
	Acenaphthylene	mg/kg	1	NS	NS	0.14	U	NA		0.14	U	NA	
	Anthracene	mg/kg	1,000	NS	NS	0.14		NA		0.25		NA	
	Benzo(ghi)perylene	mg/kg	1,000	NS	NS	0.14		NA		0.21		NA	
	Fluorene	mg/kg	1,000	NS	NS	0.18	U	NA		0.17	U	NA	
	Phenanthrene	mg/kg	10	NS	NS	0.57		NA		0.53		NA	
	Dibenzo(a,h)anthracene	mg/kg	0.7	NS	NS	0.074	U	NA		0.072	U	NA	
	Indeno(1,2,3-cd)pyrene	mg/kg	7	NS	NS	0.14		NA		0.21		NA	
	Pyrene	mg/kg	1,000	NS	NS	0.6		NA		0.73		NA	
	Aniline	mg/kg	1,000	NS	NS	0.21	U	NA		0.2	U	NA	
	4-Chloroaniline	mg/kg	1	NS	NS	0.18	U	NA		0.17	U	NA	
	Dibenzofuran	mg/kg	100	NS	NS	0.18	U	NA		0.17	U	NA	
	2-Methylnaphthalene	mg/kg	0.7	NS	NS	0.078		NA		0.11		NA	

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)-RCS-2-FILL(30)- DC				GLC-VMF(48)-RCS-2-FILL(21)- DC			
						GLC-VMF(20)- RCS-2-FILL(30)- DC-COMP		GLC-VMF(20)- RCS-2-FILL(30)- DC-VOC-4		GLC-VMF(48)- RCS-2-FILL(21)- DC-COMP		GLC-VMF(48)- RCS-2-FILL(21)- DC-VOC-7	
						L2101324-03		L2101324-04		L2101324-09		L2101324-10	
						1/11/2021		1/11/2021		1/11/2021		1/11/2021	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
	Acetophenone	mg/kg	1,000	NS	NS	0.18	U	NA		0.17	U	NA	
	2,4,6-Trichlorophenol	mg/kg	0.7	NS	NS	0.074	U	NA		0.072	U	NA	
	2-Chlorophenol	mg/kg	0.7	NS	NS	0.074	U	NA		0.072	U	NA	
	2,4-Dichlorophenol	mg/kg	0.7	NS	NS	0.074	U	NA		0.072	U	NA	
	2,4-Dimethylphenol	mg/kg	0.7	NS	NS	0.074	U	NA		0.072	U	NA	
	2-Nitrophenol	mg/kg	100	NS	NS	0.38	U	NA		0.37	U	NA	
	4-Nitrophenol	mg/kg	100	NS	NS	0.24	U	NA		0.24	U	NA	
	2,4-Dinitrophenol	mg/kg	3	NS	NS	0.84	U	NA		0.82	U	NA	
	Pentachlorophenol	mg/kg	3	NS	NS	0.35	U	NA		0.34	U	NA	
	Phenol	mg/kg	1	NS	NS	0.18	U	NA		0.17	U	NA	
	2-Methylphenol	mg/kg	500	NS	NS	0.18	U	NA		0.17	U	NA	
	3-Methylphenol/4-Methylphenol	mg/kg	500	NS	NS	0.25	U	NA		0.25	U	NA	
	2,4,5-Trichlorophenol	mg/kg	4	NS	NS	0.18	U	NA		0.17	U	NA	
	Pyridine	mg/kg	500	NS	NS	0.19	U	NA		0.18	U	NA	
	Total SVOCs	mg/kg	NS	100	100	3.828		NA		4.66		NA	
PCBs													
	Aroclor 1016	mg/kg	1	NS	NS	0.0352	U	NA		0.0334	U	NA	
	Aroclor 1221	mg/kg	1	NS	NS	0.0352	U	NA		0.0334	U	NA	
	Aroclor 1232	mg/kg	1	NS	NS	0.0352	U	NA		0.0334	U	NA	
	Aroclor 1242	mg/kg	1	NS	NS	0.0352	U	NA		0.0334	U	NA	
	Aroclor 1248	mg/kg	1	NS	NS	0.0904		NA		0.0334	U	NA	
	Aroclor 1254	mg/kg	1	NS	NS	0.148		NA		0.0394		NA	
	Aroclor 1260	mg/kg	1	NS	NS	0.0352	U	NA		0.0334	U	NA	
	Aroclor 1262	mg/kg	1	NS	NS	0.0352	U	NA		0.0334	U	NA	
	Aroclor 1268	mg/kg	1	NS	NS	0.0352	U	NA		0.0334	U	NA	
	PCBs, Total	mg/kg	1	2	2	0.238		NA		0.0394		NA	
Pesticides													
	Delta-BHC	mg/kg	10	NS	NS	0.0017	U	NA		0.00166	U	NA	
	Lindane	mg/kg	0.003	NS	NS	0.000565	U	NA		0.000552	U	NA	
	Alpha-BHC	mg/kg	50	NS	NS	0.000706	U	NA		0.00069	U	NA	
	Beta-BHC	mg/kg	10	NS	NS	0.0017	U	NA		0.00166	U	NA	
	Heptachlor	mg/kg	0.3	NS	NS	0.000848	U	NA		0.000828	U	NA	
	Aldrin	mg/kg	0.08	NS	NS	0.0017	U	NA		0.00166	U	NA	
	Heptachlor epoxide	mg/kg	0.1	NS	NS	0.00318	U	NA		0.0031	U	NA	
	Endrin	mg/kg	10	NS	NS	0.000706	U	NA		0.00069	U	NA	
	Endrin ketone	mg/kg	NS	NS	NS	0.0017	U	NA		0.00166	U	NA	
	Dieldrin	mg/kg	0.08	NS	NS	0.00106	U	NA		0.00103	U	NA	
	4,4'-DDE	mg/kg	6	NS	NS	0.0017	U	NA		0.00166	U	NA	
	4,4'-DDD	mg/kg	8	NS	NS	0.00273		NA		0.00166	U	NA	
	4,4'-DDT	mg/kg	6	NS	NS	0.00483	IP	NA		0.0031	U	NA	
	Endosulfan I	mg/kg	0.5	NS	NS	0.0017	U	NA		0.00166	U	NA	
	Endosulfan II	mg/kg	0.5	NS	NS	0.0017	U	NA		0.00166	U	NA	
	Endosulfan sulfate	mg/kg	NS	NS	NS	0.000706	U	NA		0.00069	U	NA	
	Methoxychlor	mg/kg	200	NS	NS	0.00318	U	NA		0.0031	U	NA	
	Chlordane	mg/kg	0.7	NS	NS	0.0141	U	NA		0.0138	U	NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.0017	U	NA		0.00166	U	NA	
Herbicides													
	MCP	mg/kg	NS	NS	NS	3.5	U	NA		3.4	U	NA	
	MCPA	mg/kg	100	NS	NS	3.5	U	NA		3.4	U	NA	
	Dalapon	mg/kg	1,000	NS	NS	0.035	U	NA		0.034	U	NA	
	Dicamba	mg/kg	500	NS	NS	0.035	U	NA		0.034	U	NA	
	Dichloroprop	mg/kg	NS	NS	NS	0.035	U	NA		0.034	U	NA	
	2,4-D	mg/kg	100	NS	NS	0.035	U	NA		0.034	U	NA	
	2,4-DB	mg/kg	100	NS	NS	0.035	U	NA		0.034	U	NA	
	2,4,5-T	mg/kg	100	NS	NS	0.035	U	NA		0.034	U	NA	
	2,4,5-TP (Silvex)	mg/kg	100	NS	NS	0.035	U	NA		0.034	U	NA	

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)-RCS-2-FILL(30)-DC				GLC-VMF(48)-RCS-2-FILL(21)-DC			
						GLC-VMF(20)-RCS-2-FILL(30)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(30)-DC-VOC-4		GLC-VMF(48)-RCS-2-FILL(21)-DC-COMP		GLC-VMF(48)-RCS-2-FILL(21)-DC-VOC-7	
						L2101324-03		L2101324-04		L2101324-09		L2101324-10	
						1/11/2021		1/11/2021		1/11/2021		1/11/2021	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
TPH													
	TPH (C10-C36)	mg/kg	1,000	2,500	5,000	73.7		NA		34.5	U	NA	
Metals, total													
	Antimony	mg/kg	20	NS	NS	2.11	U	NA		2.06	U	NA	
	Arsenic	mg/kg	20	40	40	6.09		NA		4.28		NA	
	Barium	mg/kg	1,000	NS	NS	31.7		NA		27.9		NA	
	Beryllium	mg/kg	90	NS	NS	0.211	U	NA		0.206	U	NA	
	Cadmium	mg/kg	70	30	80	0.598		NA		0.556		NA	
	Chromium	mg/kg	100	1,000	1,000	13.9		NA		15.9		NA	
	Lead	mg/kg	200	1,000	2,000	34.7		NA		25.2		NA	
	Mercury	mg/kg	20	10	10	0.146		NA		0.162		NA	
	Nickel	mg/kg	600	NS	NS	12.9		NA		11.7		NA	
	Selenium	mg/kg	400	NS	NS	2.11	U	NA		2.06	U	NA	
	Silver	mg/kg	100	NS	NS	0.422	U	NA		0.412	U	NA	
	Thallium	mg/kg	8	NS	NS	2.11	U	NA		2.06	U	NA	
	Vanadium	mg/kg	400	NS	NS	26.4		NA		34.8		NA	
	Zinc	mg/kg	1,000	NS	NS	60.3		NA		44.8		NA	
General Chemistry													
	Specific Conductance	umhos/cm	NS	4,000	8,000	110		NA		96		NA	
	pH	SU	NS	NS	NS	9.8		NA		8.2		NA	
	Cyanide, Reactive	mg/kg	NS	NS	NS	10	U	NA		10	U	NA	
	Sulfide, Reactive	mg/kg	NS	NS	NS	10	U	NA		10	U	NA	
	Ignitability		NS	NS	NS	NI		NA		NI		NA	

Notes:

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

su - Standard unit.

umhos/cm - Micro-mhos per centimeter.

I - The lower value for the two columns has been reported due to obvious interference.

ND - Not detected.

NI - Not ignitable.

NA - Sample not analyzed for the listed analyte.

NS - No MassDEP standards exist for this analyte.

P - The relative percent difference (RPD) between the results for the two columns exceeds the method-specified criteria.

U - Analyte was not detected at specified quantitation limit.

Values in **bold** indicate the analyte was detected.

VOCs - Volatile Organic Compounds.

SVOCs - Semivolatile Organic Compounds.

PCBs - Polychlorinated Biphenyls.

TPH - Total Petroleum Hydrocarbons.

RC - Reportable concentration.

(1) - MassDEP RC for C9-C10 aromatics used.

(2) - Criteria applicable to xylene (total), the sum of the xylene isomers.

(3) - MassDEP RC for Dichloropropane used.

(4) - MassDEP RC for Dichloropropene used.

(5) - MassDEP RC for Chlorotoluene used.

* - Reuse and Disposal of Contaminated Soil at Massachusetts Landfills, MassDEP Policy # COMM-97-001, August 1997.

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)-RCS-2-FILL(12)- DC				GLC-VMF(20)-RCS-1-FILL(9)- DC			
						GLC-VMF(20)- RCS-2-FILL(12)- DC-COMP		GLC-VMF(20)- RCS-2-FILL(12)- DC-VOC-5		GLC-VMF(20)- RCS-1-FILL(9)- DC-COMP		GLC-VMF(20)- RCS-1-FILL(9)- DC-VOC-6	
						L2101885-03		L2101885-04		L2103654-05		L2103654-06	
						1/13/2021		1/13/2021		1/22/2021		1/22/2021	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
VOCs													
	Methylene chloride	mg/kg	0.1	NS	NS	NA		0.0037	U	NA		0.0034	U
	1,1-Dichloroethane	mg/kg	0.4	NS	NS	NA		0.00074	U	NA		0.00067	U
	Chloroform	mg/kg	0.2	NS	NS	NA		0.0011	U	NA		0.001	U
	Carbon tetrachloride	mg/kg	5	NS	NS	NA		0.00074	U	NA		0.00067	U
	1,2-Dichloropropane	mg/kg	0.1	NS	NS	NA		0.00074	U	NA		0.00067	U
	Dibromochloromethane	mg/kg	0.005	NS	NS	NA		0.00074	U	NA		0.00067	U
	1,1,2-Trichloroethane	mg/kg	0.1	NS	NS	NA		0.00074	U	NA		0.00067	U
	Tetrachloroethene	mg/kg	1	NS	NS	NA		0.00062		NA		0.00046	
	Chlorobenzene	mg/kg	1	NS	NS	NA		0.00037	U	NA		0.00034	U
	Trichlorofluoromethane	mg/kg	1,000	NS	NS	NA		0.0029	U	NA		0.0027	U
	1,2-Dichloroethane	mg/kg	0.1	NS	NS	NA		0.00074	U	NA		0.00067	U
	1,1,1-Trichloroethane	mg/kg	30	NS	NS	NA		0.00037	U	NA		0.00034	U
	Bromodichloromethane	mg/kg	0.1	NS	NS	NA		0.00037	U	NA		0.00034	U
	trans-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.00074	U	NA		0.00067	U
	cis-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.00037	U	NA		0.00034	U
	1,3-Dichloropropene, Total	mg/kg	0.01	NS	NS	NA		0.00037	U	NA		0.00034	U
	1,1-Dichloropropene	mg/kg	0.01(4)	NS	NS	NA		0.00037	U	NA		0.00034	U
	Bromoform	mg/kg	0.1	NS	NS	NA		0.0029	U	NA		0.0027	U
	1,1,2,2-Tetrachloroethane	mg/kg	0.005	NS	NS	NA		0.00037	U	NA		0.00034	U
	Benzene	mg/kg	2	NS	NS	NA		0.00037	U	NA		0.00034	U
	Toluene	mg/kg	30	NS	NS	NA		0.00074	U	NA		0.00067	U
	Ethylbenzene	mg/kg	40	NS	NS	NA		0.00074	U	NA		0.00067	U
	Chloromethane	mg/kg	100	NS	NS	NA		0.0029	U	NA		0.0027	U
	Bromomethane	mg/kg	0.5	NS	NS	NA		0.0015	U	NA		0.0013	U
	Vinyl chloride	mg/kg	0.7	NS	NS	NA		0.00074	U	NA		0.00067	U
	Chloroethane	mg/kg	100	NS	NS	NA		0.0015	U	NA		0.0013	U
	1,1-Dichloroethene	mg/kg	3	NS	NS	NA		0.00074	U	NA		0.00067	U
	trans-1,2-Dichloroethene	mg/kg	1	NS	NS	NA		0.0011	U	NA		0.001	U
	Trichloroethene	mg/kg	0.3	NS	NS	NA		0.00037	U	NA		0.00034	U
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	NA		0.0015	U	NA		0.0013	U
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	NA		0.0015	U	NA		0.0013	U
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	NA		0.0015	U	NA		0.0013	U
	Methyl tert butyl ether	mg/kg	0.1	NS	NS	NA		0.0015	U	NA		0.0013	U
	p/m-Xylene	mg/kg	100(2)	NS	NS	NA		0.0015	U	NA		0.0013	U
	o-Xylene	mg/kg	100(2)	NS	NS	NA		0.00074	U	NA		0.00067	U
	Xylenes, Total	mg/kg	100	NS	NS	NA		0.00074	U	NA		0.00067	U
	cis-1,2-Dichloroethene	mg/kg	0.1	NS	NS	NA		0.00074	U	NA		0.00067	U
	1,2-Dichloroethene, Total	mg/kg	0.3	NS	NS	NA		0.00074	U	NA		0.00067	U
	Dibromomethane	mg/kg	500	NS	NS	NA		0.0015	U	NA		0.0013	U
	1,2,3-Trichloropropane	mg/kg	100	NS	NS	NA		0.0015	U	NA		0.0013	U
	Styrene	mg/kg	3	NS	NS	NA		0.00074	U	NA		0.00067	U
	Dichlorodifluoromethane	mg/kg	1,000	NS	NS	NA		0.0074	U	NA		0.0067	U
	Acetone	mg/kg	6	NS	NS	NA		0.018		NA		0.017	U
	Carbon disulfide	mg/kg	100	NS	NS	NA		0.0074	U	NA		0.0067	U
	Methyl ethyl ketone	mg/kg	4	NS	NS	NA		0.0074	U	NA		0.0067	U
	Methyl isobutyl ketone	mg/kg	0.4	NS	NS	NA		0.0074	U	NA		0.0067	U
	2-Hexanone	mg/kg	100	NS	NS	NA		0.0074	U	NA		0.0067	U
	Bromochloromethane	mg/kg	NS	NS	NS	NA		0.0015	U	NA		0.0013	U
	Tetrahydrofuran	mg/kg	500	NS	NS	NA		0.0029	U	NA		0.0027	U
	2,2-Dichloropropane	mg/kg	0.1(3)	NS	NS	NA		0.0015	U	NA		0.0013	U
	1,2-Dibromoethane	mg/kg	0.1	NS	NS	NA		0.00074	U	NA		0.00067	U
	1,3-Dichloropropane	mg/kg	500	NS	NS	NA		0.0015	U	NA		0.0013	U
	1,1,1,2-Tetrachloroethane	mg/kg	0.1	NS	NS	NA		0.00037	U	NA		0.00034	U
	Bromobenzene	mg/kg	100	NS	NS	NA		0.0015	U	NA		0.0013	U
	n-Butylbenzene	mg/kg	100(1)	NS	NS	NA		0.00074	U	NA		0.00067	U
	sec-Butylbenzene	mg/kg	100(1)	NS	NS	NA		0.00074	U	NA		0.00067	U
	tert-Butylbenzene	mg/kg	100	NS	NS	NA		0.0015	U	NA		0.0013	U
	o-Chlorotoluene	mg/kg	100	NS	NS	NA		0.0015	U	NA		0.0013	U
	p-Chlorotoluene	mg/kg	100(5)	NS	NS	NA		0.0015	U	NA		0.0013	U

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)-RCS-2-FILL(12)- DC				GLC-VMF(20)-RCS-1-FILL(9)- DC			
						GLC-VMF(20)- RCS-2-FILL(12)- DC-COMP		GLC-VMF(20)- RCS-2-FILL(12)- DC-VOC-5		GLC-VMF(20)- RCS-1-FILL(9)- DC-COMP		GLC-VMF(20)- RCS-1-FILL(9)- DC-VOC-6	
						L2101885-03		L2101885-04		L2103654-05		L2103654-06	
						1/13/2021		1/13/2021		1/22/2021		1/22/2021	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
	1,2-Dibromo-3-chloropropane	mg/kg	10	NS	NS	NA		0.0022	U	NA		0.002	U
	Hexachlorobutadiene	mg/kg	30	NS	NS	NA		0.0029	U	NA		0.0027	U
	Isopropylbenzene	mg/kg	1,000	NS	NS	NA		0.00074	U	NA		0.00067	U
	p-Isopropyltoluene	mg/kg	100	NS	NS	NA		0.00074	U	NA		0.00067	U
	Naphthalene	mg/kg	4	NS	NS	NA		0.0029	U	NA		0.0027	U
	n-Propylbenzene	mg/kg	100	NS	NS	NA		0.00074	U	NA		0.00067	U
	1,2,3-Trichlorobenzene	mg/kg	NS	NS	NS	NA		0.0015	U	NA		0.0013	U
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	NA		0.0015	U	NA		0.0013	U
	1,3,5-Trimethylbenzene	mg/kg	10	NS	NS	NA		0.0015	U	NA		0.0013	U
	1,2,4-Trimethylbenzene	mg/kg	1,000	NS	NS	NA		0.0015	U	NA		0.0013	U
	Diethyl ether	mg/kg	100	NS	NS	NA		0.0015	U	NA		0.0013	U
	Diisopropyl Ether	mg/kg	100	NS	NS	NA		0.0015	U	NA		0.0013	U
	Ethyl-Tert-Butyl-Ether	mg/kg	NS	NS	NS	NA		0.0015	U	NA		0.0013	U
	Tertiary-Amyl Methyl Ether	mg/kg	NS	NS	NS	NA		0.0015	U	NA		0.0013	U
	1,4-Dioxane	mg/kg	0.2	NS	NS	NA		0.059	U	NA		0.054	U
	Total VOCs	mg/kg	NS	4	10	NA		0.01862		NA		0.00046	
SVOCs													
	Acenaphthene	mg/kg	4	NS	NS	0.15	U	NA		0.14	U	NA	
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	0.18	U	NA		0.17	U	NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	Bis(2-chloroethyl)ether	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	2-Chloronaphthalene	mg/kg	1,000	NS	NS	0.18	U	NA		0.17	U	NA	
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	0.18	U	NA		0.17	U	NA	
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	0.18	U	NA		0.17	U	NA	
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	3,3'-Dichlorobenzidine	mg/kg	3	NS	NS	0.18	U	NA		0.17	U	NA	
	2,4-Dinitrotoluene	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	2,6-Dinitrotoluene	mg/kg	100	NS	NS	0.18	U	NA		0.17	U	NA	
	Azobenzene	mg/kg	50	NS	NS	0.18	U	NA		0.17	U	NA	
	Fluoranthene	mg/kg	1,000	NS	NS	1.2		NA		0.4		NA	
	4-Bromophenyl phenyl ether	mg/kg	100	NS	NS	0.18	U	NA		0.17	U	NA	
	Bis(2-chloroisopropyl)ether	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	Bis(2-chloroethoxy)methane	mg/kg	500	NS	NS	0.2	U	NA		0.19	U	NA	
	Hexachlorobutadiene	mg/kg	30	NS	NS	0.18	U	NA		0.17	U	NA	
	Hexachloroethane	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	Isophorone	mg/kg	100	NS	NS	0.16	U	NA		0.16	U	NA	
	Naphthalene	mg/kg	4	NS	NS	0.23		NA		0.17	U	NA	
	Nitrobenzene	mg/kg	500	NS	NS	0.16	U	NA		0.16	U	NA	
	Bis(2-ethylhexyl)phthalate	mg/kg	90	NS	NS	0.18	U	NA		0.17	U	NA	
	Butyl benzyl phthalate	mg/kg	100	NS	NS	0.18	U	NA		0.17	U	NA	
	Di-n-butylphthalate	mg/kg	50	NS	NS	0.18	U	NA		0.17	U	NA	
	Di-n-octylphthalate	mg/kg	1,000	NS	NS	0.18	U	NA		0.17	U	NA	
	Diethyl phthalate	mg/kg	10	NS	NS	0.18	U	NA		0.17	U	NA	
	Dimethyl phthalate	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	Benzo(a)anthracene	mg/kg	7	NS	NS	0.66		NA		0.2		NA	
	Benzo(a)pyrene	mg/kg	2	NS	NS	0.66		NA		0.18		NA	
	Benzo(b)fluoranthene	mg/kg	7	NS	NS	0.83		NA		0.23		NA	
	Benzo(k)fluoranthene	mg/kg	70	NS	NS	0.25		NA		0.1	U	NA	
	Chrysene	mg/kg	70	NS	NS	0.66		NA		0.19		NA	
	Acenaphthylene	mg/kg	1	NS	NS	0.15	U	NA		0.14	U	NA	
	Anthracene	mg/kg	1,000	NS	NS	0.21		NA		0.1	U	NA	
	Benzo(ghi)perylene	mg/kg	1,000	NS	NS	0.42		NA		0.14	U	NA	
	Fluorene	mg/kg	1,000	NS	NS	0.18	U	NA		0.17	U	NA	
	Phenanthrene	mg/kg	10	NS	NS	0.74		NA		0.23		NA	
	Dibenzo(a,h)anthracene	mg/kg	0.7	NS	NS	0.11		NA		0.073	U	NA	
	Indeno(1,2,3-cd)pyrene	mg/kg	7	NS	NS	0.42		NA		0.14	U	NA	
	Pyrene	mg/kg	1,000	NS	NS	1.1		NA		0.36		NA	
	Aniline	mg/kg	1,000	NS	NS	0.22	U	NA		0.21	U	NA	
	4-Chloroaniline	mg/kg	1	NS	NS	0.18	U	NA		0.17	U	NA	
	Dibenzofuran	mg/kg	100	NS	NS	0.18	U	NA		0.17	U	NA	
	2-Methylnaphthalene	mg/kg	0.7	NS	NS	0.1		NA		0.073	U	NA	

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)-RCS-2-FILL(12)- DC				GLC-VMF(20)-RCS-1-FILL(9)- DC			
						GLC-VMF(20)- RCS-2-FILL(12)- DC-COMP		GLC-VMF(20)- RCS-2-FILL(12)- DC-VOC-5		GLC-VMF(20)- RCS-1-FILL(9)- DC-COMP		GLC-VMF(20)- RCS-1-FILL(9)- DC-VOC-6	
						L2101885-03		L2101885-04		L2103654-05		L2103654-06	
						1/13/2021		1/13/2021		1/22/2021		1/22/2021	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
	Acetophenone	mg/kg	1,000	NS	NS	0.18	U	NA		0.17	U	NA	
	2,4,6-Trichlorophenol	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	2-Chlorophenol	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	2,4-Dichlorophenol	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	2,4-Dimethylphenol	mg/kg	0.7	NS	NS	0.077	U	NA		0.073	U	NA	
	2-Nitrophenol	mg/kg	100	NS	NS	0.4	U	NA		0.38	U	NA	
	4-Nitrophenol	mg/kg	100	NS	NS	0.26	U	NA		0.24	U	NA	
	2,4-Dinitrophenol	mg/kg	3	NS	NS	0.88	U	NA		0.83	U	NA	
	Pentachlorophenol	mg/kg	3	NS	NS	0.37	U	NA		0.35	U	NA	
	Phenol	mg/kg	1	NS	NS	0.18	U	NA		0.17	U	NA	
	2-Methylphenol	mg/kg	500	NS	NS	0.18	U	NA		0.17	U	NA	
	3-Methylphenol/4-Methylphenol	mg/kg	500	NS	NS	0.26	U	NA		0.25	U	NA	
	2,4,5-Trichlorophenol	mg/kg	4	NS	NS	0.18	U	NA		0.17	U	NA	
	Pyridine	mg/kg	500	NS	NS	0.2	U	NA		0.19	U	NA	
	Total SVOCs	mg/kg	NS	100	100	7.59		NA		1.79		NA	
PCBs													
	Aroclor 1016	mg/kg	1	NS	NS	0.18	U	NA		0.0338	U	NA	
	Aroclor 1221	mg/kg	1	NS	NS	0.18	U	NA		0.0338	U	NA	
	Aroclor 1232	mg/kg	1	NS	NS	0.18	U	NA		0.0338	U	NA	
	Aroclor 1242	mg/kg	1	NS	NS	0.18	U	NA		0.0338	U	NA	
	Aroclor 1248	mg/kg	1	NS	NS	0.18	U	NA		0.0338	U	NA	
	Aroclor 1254	mg/kg	1	NS	NS	0.928		NA		0.0338	U	NA	
	Aroclor 1260	mg/kg	1	NS	NS	0.18	U	NA		0.0338	U	NA	
	Aroclor 1262	mg/kg	1	NS	NS	0.18	U	NA		0.0338	U	NA	
	Aroclor 1268	mg/kg	1	NS	NS	0.18	U	NA		0.0338	U	NA	
	PCBs, Total	mg/kg	1	2	2	0.928		NA		0.0338	U	NA	
Pesticides													
	Delta-BHC	mg/kg	10	NS	NS	0.00171	U	NA		0.0017	U	NA	
	Lindane	mg/kg	0.003	NS	NS	0.000569	U	NA		0.000568	U	NA	
	Alpha-BHC	mg/kg	50	NS	NS	0.000711	U	NA		0.00071	U	NA	
	Beta-BHC	mg/kg	10	NS	NS	0.00171	U	NA		0.0017	U	NA	
	Heptachlor	mg/kg	0.3	NS	NS	0.000853	U	NA		0.000852	U	NA	
	Aldrin	mg/kg	0.08	NS	NS	0.00171	U	NA		0.0017	U	NA	
	Heptachlor epoxide	mg/kg	0.1	NS	NS	0.0032	U	NA		0.0032	U	NA	
	Endrin	mg/kg	10	NS	NS	0.000711	U	NA		0.00071	U	NA	
	Endrin ketone	mg/kg	NS	NS	NS	0.00171	U	NA		0.0017	U	NA	
	Dieldrin	mg/kg	0.08	NS	NS	0.00107	U	NA		0.00106	U	NA	
	4,4'-DDE	mg/kg	6	NS	NS	0.00171	U	NA		0.0017	U	NA	
	4,4'-DDD	mg/kg	8	NS	NS	0.00539		NA		0.0017	U	NA	
	4,4'-DDT	mg/kg	6	NS	NS	0.0032	U	NA		0.0032	U	NA	
	Endosulfan I	mg/kg	0.5	NS	NS	0.00171	U	NA		0.0017	U	NA	
	Endosulfan II	mg/kg	0.5	NS	NS	0.00171	U	NA		0.0017	U	NA	
	Endosulfan sulfate	mg/kg	NS	NS	NS	0.000711	U	NA		0.00071	U	NA	
	Methoxychlor	mg/kg	200	NS	NS	0.0032	U	NA		0.0032	U	NA	
	Chlordane	mg/kg	0.7	NS	NS	0.0142	U	NA		0.0142	U	NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.00171	U	NA		0.0017	U	NA	
Herbicides													
	MCP	mg/kg	NS	NS	NS	3.7	U	NA		3.5	U	NA	
	MCPA	mg/kg	100	NS	NS	3.7	U	NA		3.5	U	NA	
	Dalapon	mg/kg	1,000	NS	NS	0.037	U	NA		0.035	U	NA	
	Dicamba	mg/kg	500	NS	NS	0.037	U	NA		0.035	U	NA	
	Dichloroprop	mg/kg	NS	NS	NS	0.037	U	NA		0.035	U	NA	
	2,4-D	mg/kg	100	NS	NS	0.037	U	NA		0.035	U	NA	
	2,4-DB	mg/kg	100	NS	NS	0.037	U	NA		0.035	U	NA	
	2,4,5-T	mg/kg	100	NS	NS	0.037	U	NA		0.035	U	NA	
	2,4,5-TP (Silvex)	mg/kg	100	NS	NS	0.037	U	NA		0.035	U	NA	

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(20)-RCS-2-FILL(12)-DC				GLC-VMF(20)-RCS-1-FILL(9)-DC			
						GLC-VMF(20)-RCS-2-FILL(12)-DC-COMP		GLC-VMF(20)-RCS-2-FILL(12)-DC-VOC-5		GLC-VMF(20)-RCS-1-FILL(9)-DC-COMP		GLC-VMF(20)-RCS-1-FILL(9)-DC-VOC-6	
						L2101885-03		L2101885-04		L2103654-05		L2103654-06	
						1/13/2021		1/13/2021		1/22/2021		1/22/2021	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
TPH													
	TPH (C10-C36)	mg/kg	1,000	2,500	5,000	133		NA		42.9		NA	
Metals, total													
	Antimony	mg/kg	20	NS	NS	2.11	U	NA		2.02	U	NA	
	Arsenic	mg/kg	20	40	40	7.66		NA		2.46		NA	
	Barium	mg/kg	1,000	NS	NS	41.8		NA		26.9		NA	
	Beryllium	mg/kg	90	NS	NS	0.241		NA		0.202	U	NA	
	Cadmium	mg/kg	70	30	80	0.722		NA		0.489		NA	
	Chromium	mg/kg	100	1,000	1,000	16.5		NA		18		NA	
	Lead	mg/kg	200	1,000	2,000	37.4		NA		11		NA	
	Mercury	mg/kg	20	10	10	0.149		NA		0.074	U	NA	
	Nickel	mg/kg	600	NS	NS	14.2		NA		11.7		NA	
	Selenium	mg/kg	400	NS	NS	2.11	U	NA		2.02	U	NA	
	Silver	mg/kg	100	NS	NS	0.422	U	NA		0.404	U	NA	
	Thallium	mg/kg	8	NS	NS	2.11	U	NA		2.02	U	NA	
	Vanadium	mg/kg	400	NS	NS	31.2		NA		40		NA	
	Zinc	mg/kg	1,000	NS	NS	67.7		NA		43.1		NA	
General Chemistry													
	Specific Conductance	umhos/cm	NS	4,000	8,000	52		NA		45		NA	
	pH	SU	NS	NS	NS	8.2		NA		8.4		NA	
	Cyanide, Reactive	mg/kg	NS	NS	NS	10	U	NA		10	U	NA	
	Sulfide, Reactive	mg/kg	NS	NS	NS	10	U	NA		10	U	NA	
	Ignitability		NS	NS	NS	NI		NA		NI		NA	

Notes:
mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).
su - Standard unit.
umhos/cm - Micro-mhos per centimeter.
I - The lower value for the two columns has been reported due to obvious interference.
ND - Not detected.
NI - Not ignitable.
NA - Sample not analyzed for the listed analyte.
NS - No MassDEP standards exist for this analyte.
P - The relative percent difference (RPD) between the results for the two columns exceeds the method-specified criteria.
U - Analyte was not detected at specified quantitation limit.
Values in **bold** indicate the analyte was detected.
VOCs - Volatile Organic Compounds.
SVOCs - Semivolatile Organic Compounds.
PCBs - Polychlorinated Biphenyls.
TPH - Total Petroleum Hydrocarbons.
RC - Reportable concentration.
(1) - MassDEP RC for C9-C10 aromatics used.
(2) - Criteria applicable to xylene (total), the sum of the xylene isomers.
(3) - MassDEP RC for Dichloropropane used.
(4) - MassDEP RC for Dichloropropene used.
(5) - MassDEP RC for Chlorotoluene used.
* - Reuse and Disposal of Contaminated Soil at Massachusetts Landfills, MassDEP Policy # COMM-97-001, August 1997.

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(48)-RCS-2-FILL(24)- DC				GLC-VMF(9H)-RCS-2-FILL(5)- DC			
						GLC-VMF(48)- RCS-2-FILL(24)- DC-COMP		GLC-VMF(48)- RCS-2-FILL(24)- DC-VOC-3		GLC-VMF(9H)- RCS-2-FILL(5)- DC-COMP		GLC-VMF(9H)- RCS-2-FILL(5)- DC-VOC-5	
						L2104491-01		L2104491-02		L2105273-05		L2105273-06	
						1/27/2021		1/27/2021		2/3/2021		2/3/2021	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
VOCs													
	Methylene chloride	mg/kg	0.1	NS	NS	NA		0.0031	U	NA		0.0043	U
	1,1-Dichloroethane	mg/kg	0.4	NS	NS	NA		0.00061	U	NA		0.00086	U
	Chloroform	mg/kg	0.2	NS	NS	NA		0.00092	U	NA		0.0013	U
	Carbon tetrachloride	mg/kg	5	NS	NS	NA		0.00061	U	NA		0.00086	U
	1,2-Dichloropropane	mg/kg	0.1	NS	NS	NA		0.00061	U	NA		0.00086	U
	Dibromochloromethane	mg/kg	0.005	NS	NS	NA		0.00061	U	NA		0.00086	U
	1,1,2-Trichloroethane	mg/kg	0.1	NS	NS	NA		0.00061	U	NA		0.00086	U
	Tetrachloroethene	mg/kg	1	NS	NS	NA		0.00035		NA		0.00071	
	Chlorobenzene	mg/kg	1	NS	NS	NA		0.00031	U	NA		0.00043	U
	Trichlorofluoromethane	mg/kg	1,000	NS	NS	NA		0.0024	U	NA		0.0034	U
	1,2-Dichloroethane	mg/kg	0.1	NS	NS	NA		0.00061	U	NA		0.00086	U
	1,1,1-Trichloroethane	mg/kg	30	NS	NS	NA		0.00031	U	NA		0.00043	U
	Bromodichloromethane	mg/kg	0.1	NS	NS	NA		0.00031	U	NA		0.00043	U
	trans-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.00061	U	NA		0.00086	U
	cis-1,3-Dichloropropene	mg/kg	0.01	NS	NS	NA		0.00031	U	NA		0.00043	U
	1,3-Dichloropropene, Total	mg/kg	0.01	NS	NS	NA		0.00031	U	NA		0.00043	U
	1,1-Dichloropropene	mg/kg	0.01(4)	NS	NS	NA		0.00031	U	NA		0.00043	U
	Bromoform	mg/kg	0.1	NS	NS	NA		0.0024	U	NA		0.0034	U
	1,1,2,2-Tetrachloroethane	mg/kg	0.005	NS	NS	NA		0.00031	U	NA		0.00043	U
	Benzene	mg/kg	2	NS	NS	NA		0.00031	U	NA		0.00043	U
	Toluene	mg/kg	30	NS	NS	NA		0.00061	U	NA		0.00086	U
	Ethylbenzene	mg/kg	40	NS	NS	NA		0.00061	U	NA		0.0067	
	Chloromethane	mg/kg	100	NS	NS	NA		0.0024	U	NA		0.0034	U
	Bromomethane	mg/kg	0.5	NS	NS	NA		0.0012	U	NA		0.0017	U
	Vinyl chloride	mg/kg	0.7	NS	NS	NA		0.00061	U	NA		0.00086	U
	Chloroethane	mg/kg	100	NS	NS	NA		0.0012	U	NA		0.0017	U
	1,1-Dichloroethene	mg/kg	3	NS	NS	NA		0.00061	U	NA		0.00086	U
	trans-1,2-Dichloroethene	mg/kg	1	NS	NS	NA		0.00092	U	NA		0.0013	U
	Trichloroethene	mg/kg	0.3	NS	NS	NA		0.00031	U	NA		0.00043	U
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	NA		0.0012	U	NA		0.0017	U
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	NA		0.0012	U	NA		0.0017	U
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	NA		0.0012	U	NA		0.0017	U
	Methyl tert butyl ether	mg/kg	0.1	NS	NS	NA		0.0012	U	NA		0.0017	U
	p/m-Xylene	mg/kg	100(2)	NS	NS	NA		0.0012	U	NA		0.0017	U
	o-Xylene	mg/kg	100(2)	NS	NS	NA		0.00061	U	NA		0.00086	U
	Xylenes, Total	mg/kg	100	NS	NS	NA		0.00061	U	NA		0.00086	U
	cis-1,2-Dichloroethene	mg/kg	0.1	NS	NS	NA		0.00061	U	NA		0.00086	U
	1,2-Dichloroethene, Total	mg/kg	0.3	NS	NS	NA		0.00061	U	NA		0.00086	U
	Dibromomethane	mg/kg	500	NS	NS	NA		0.0012	U	NA		0.0017	U
	1,2,3-Trichloropropane	mg/kg	100	NS	NS	NA		0.0012	U	NA		0.0017	U
	Styrene	mg/kg	3	NS	NS	NA		0.00061	U	NA		0.00086	U
	Dichlorodifluoromethane	mg/kg	1,000	NS	NS	NA		0.0061	U	NA		0.0086	U
	Acetone	mg/kg	6	NS	NS	NA		0.015	U	NA		0.021	U
	Carbon disulfide	mg/kg	100	NS	NS	NA		0.0061	U	NA		0.0086	U
	Methyl ethyl ketone	mg/kg	4	NS	NS	NA		0.0061	U	NA		0.0086	U
	Methyl isobutyl ketone	mg/kg	0.4	NS	NS	NA		0.0061	U	NA		0.0086	U
	2-Hexanone	mg/kg	100	NS	NS	NA		0.0061	U	NA		0.0086	U
	Bromochloromethane	mg/kg	NS	NS	NS	NA		0.0012	U	NA		0.0017	U
	Tetrahydrofuran	mg/kg	500	NS	NS	NA		0.0024	U	NA		0.0034	U
	2,2-Dichloropropane	mg/kg	0.1(3)	NS	NS	NA		0.0012	U	NA		0.0017	U
	1,2-Dibromoethane	mg/kg	0.1	NS	NS	NA		0.00061	U	NA		0.00086	U
	1,3-Dichloropropane	mg/kg	500	NS	NS	NA		0.0012	U	NA		0.0017	U
	1,1,1,2-Tetrachloroethane	mg/kg	0.1	NS	NS	NA		0.00031	U	NA		0.00043	U
	Bromobenzene	mg/kg	100	NS	NS	NA		0.0012	U	NA		0.0017	U
	n-Butylbenzene	mg/kg	100(1)	NS	NS	NA		0.00061	U	NA		0.00086	U
	sec-Butylbenzene	mg/kg	100(1)	NS	NS	NA		0.00061	U	NA		0.00086	U
	tert-Butylbenzene	mg/kg	100	NS	NS	NA		0.0012	U	NA		0.0017	U
	o-Chlorotoluene	mg/kg	100	NS	NS	NA		0.0012	U	NA		0.0017	U
	p-Chlorotoluene	mg/kg	100(5)	NS	NS	NA		0.0012	U	NA		0.0017	U

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(48)-RCS-2-FILL(24)-DC				GLC-VMF(9H)-RCS-2-FILL(5)-DC			
						GLC-VMF(48)-RCS-2-FILL(24)-DC-COMP		GLC-VMF(48)-RCS-2-FILL(24)-DC-VOC-3		GLC-VMF(9H)-RCS-2-FILL(5)-DC-COMP		GLC-VMF(9H)-RCS-2-FILL(5)-DC-VOC-5	
						L2104491-01		L2104491-02		L2105273-05		L2105273-06	
						1/27/2021		1/27/2021		2/3/2021		2/3/2021	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
	1,2-Dibromo-3-chloropropane	mg/kg	10	NS	NS	NA		0.0018	U	NA		0.0026	U
	Hexachlorobutadiene	mg/kg	30	NS	NS	NA		0.0024	U	NA		0.0034	U
	Isopropylbenzene	mg/kg	1,000	NS	NS	NA		0.00061	U	NA		0.00086	U
	p-Isopropyltoluene	mg/kg	100	NS	NS	NA		0.00061	U	NA		0.00086	U
	Naphthalene	mg/kg	4	NS	NS	NA		0.0024	U	NA		0.0034	U
	n-Propylbenzene	mg/kg	100	NS	NS	NA		0.00061	U	NA		0.0016	
	1,2,3-Trichlorobenzene	mg/kg	NS	NS	NS	NA		0.0012	U	NA		0.0017	U
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	NA		0.0012	U	NA		0.0017	U
	1,3,5-Trimethylbenzene	mg/kg	10	NS	NS	NA		0.0012	U	NA		0.0017	U
	1,2,4-Trimethylbenzene	mg/kg	1,000	NS	NS	NA		0.0012	U	NA		0.0017	U
	Diethyl ether	mg/kg	100	NS	NS	NA		0.0012	U	NA		0.0017	U
	Diisopropyl Ether	mg/kg	100	NS	NS	NA		0.0012	U	NA		0.0017	U
	Ethyl-Tert-Butyl-Ether	mg/kg	NS	NS	NS	NA		0.0012	U	NA		0.0017	U
	Tertiary-Amyl Methyl Ether	mg/kg	NS	NS	NS	NA		0.0012	U	NA		0.0017	U
	1,4-Dioxane	mg/kg	0.2	NS	NS	NA		0.049	U	NA		0.069	U
	Total VOCs	mg/kg	NS	4	10	NA		0.00035		NA		0.00901	
SVOCs													
	Acenaphthene	mg/kg	4	NS	NS	0.14	U	NA		0.14	U	NA	
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	0.17	U	NA		0.18	U	NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.072	U	NA		0.075	U	NA	
	Bis(2-chloroethyl)ether	mg/kg	0.7	NS	NS	0.072	U	NA		0.075	U	NA	
	2-Chloronaphthalene	mg/kg	1,000	NS	NS	0.17	U	NA		0.18	U	NA	
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	0.17	U	NA		0.18	U	NA	
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	0.17	U	NA		0.18	U	NA	
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	0.072	U	NA		0.075	U	NA	
	3,3'-Dichlorobenzidine	mg/kg	3	NS	NS	0.17	U	NA		0.18	U	NA	
	2,4-Dinitrotoluene	mg/kg	0.7	NS	NS	0.072	U	NA		0.075	U	NA	
	2,6-Dinitrotoluene	mg/kg	100	NS	NS	0.17	U	NA		0.18	U	NA	
	Azobenzene	mg/kg	50	NS	NS	0.17	U	NA		0.18	U	NA	
	Fluoranthene	mg/kg	1,000	NS	NS	0.86		NA		0.3		NA	
	4-Bromophenyl phenyl ether	mg/kg	100	NS	NS	0.17	U	NA		0.18	U	NA	
	Bis(2-chloroisopropyl)ether	mg/kg	0.7	NS	NS	0.072	U	NA		0.075	U	NA	
	Bis(2-chloroethoxy)methane	mg/kg	500	NS	NS	0.18	U	NA		0.19	U	NA	
	Hexachlorobutadiene	mg/kg	30	NS	NS	0.17	U	NA		0.18	U	NA	
	Hexachloroethane	mg/kg	0.7	NS	NS	0.072	U	NA		0.075	U	NA	
	Isophorone	mg/kg	100	NS	NS	0.15	U	NA		0.16	U	NA	
	Naphthalene	mg/kg	4	NS	NS	0.17	U	NA		0.18	U	NA	
	Nitrobenzene	mg/kg	500	NS	NS	0.15	U	NA		0.16	U	NA	
	Bis(2-ethylhexyl)phthalate	mg/kg	90	NS	NS	0.17	U	NA		0.18	U	NA	
	Butyl benzyl phthalate	mg/kg	100	NS	NS	0.17	U	NA		0.18	U	NA	
	Di-n-butylphthalate	mg/kg	50	NS	NS	0.17	U	NA		0.18	U	NA	
	Di-n-octylphthalate	mg/kg	1,000	NS	NS	0.17	U	NA		0.18	U	NA	
	Diethyl phthalate	mg/kg	10	NS	NS	0.17	U	NA		0.18	U	NA	
	Dimethyl phthalate	mg/kg	0.7	NS	NS	0.072	U	NA		0.075	U	NA	
	Benzo(a)anthracene	mg/kg	7	NS	NS	0.48		NA		0.19		NA	
	Benzo(a)pyrene	mg/kg	2	NS	NS	0.53		NA		0.21		NA	
	Benzo(b)fluoranthene	mg/kg	7	NS	NS	0.64		NA		0.24		NA	
	Benzo(k)fluoranthene	mg/kg	70	NS	NS	0.22		NA		0.11	U	NA	
	Chrysene	mg/kg	70	NS	NS	0.49		NA		0.18		NA	
	Acenaphthylene	mg/kg	1	NS	NS	0.14	U	NA		0.14	U	NA	
	Anthracene	mg/kg	1,000	NS	NS	0.13		NA		0.11	U	NA	
	Benzo(ghi)perylene	mg/kg	1,000	NS	NS	0.29		NA		0.14	U	NA	
	Fluorene	mg/kg	1,000	NS	NS	0.17	U	NA		0.18	U	NA	
	Phenanthrene	mg/kg	10	NS	NS	0.38		NA		0.18		NA	
	Dibenzo(a,h)anthracene	mg/kg	0.7	NS	NS	0.072	U	NA		0.075	U	NA	
	Indeno(1,2,3-cd)pyrene	mg/kg	7	NS	NS	0.28		NA		0.14	U	NA	
	Pyrene	mg/kg	1,000	NS	NS	0.8		NA		0.27		NA	
	Aniline	mg/kg	1,000	NS	NS	0.2	U	NA		0.21	U	NA	
	4-Chloroaniline	mg/kg	1	NS	NS	0.17	U	NA		0.18	U	NA	
	Dibenzofuran	mg/kg	100	NS	NS	0.17	U	NA		0.18	U	NA	
	2-Methylnaphthalene	mg/kg	0.7	NS	NS	0.072	U	NA		0.075	U	NA	

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(48)-RCS-2-FILL(24)- DC				GLC-VMF(9H)-RCS-2-FILL(5)- DC			
						GLC-VMF(48)- RCS-2-FILL(24)- DC-COMP		GLC-VMF(48)- RCS-2-FILL(24)- DC-VOC-3		GLC-VMF(9H)- RCS-2-FILL(5)- DC-COMP		GLC-VMF(9H)- RCS-2-FILL(5)- DC-VOC-5	
						L2104491-01		L2104491-02		L2105273-05		L2105273-06	
						1/27/2021		1/27/2021		2/3/2021		2/3/2021	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
	Acetophenone	mg/kg	1,000	NS	NS	0.17	U	NA		0.18	U	NA	
	2,4,6-Trichlorophenol	mg/kg	0.7	NS	NS	0.072	U	NA		0.075	U	NA	
	2-Chlorophenol	mg/kg	0.7	NS	NS	0.072	U	NA		0.075	U	NA	
	2,4-Dichlorophenol	mg/kg	0.7	NS	NS	0.072	U	NA		0.075	U	NA	
	2,4-Dimethylphenol	mg/kg	0.7	NS	NS	0.072	U	NA		0.075	U	NA	
	2-Nitrophenol	mg/kg	100	NS	NS	0.37	U	NA		0.39	U	NA	
	4-Nitrophenol	mg/kg	100	NS	NS	0.24	U	NA		0.25	U	NA	
	2,4-Dinitrophenol	mg/kg	3	NS	NS	0.82	U	NA		0.86	U	NA	
	Pentachlorophenol	mg/kg	3	NS	NS	0.34	U	NA		0.36	U	NA	
	Phenol	mg/kg	1	NS	NS	0.17	U	NA		0.18	U	NA	
	2-Methylphenol	mg/kg	500	NS	NS	0.17	U	NA		0.18	U	NA	
	3-Methylphenol/4-Methylphenol	mg/kg	500	NS	NS	0.25	U	NA		0.26	U	NA	
	2,4,5-Trichlorophenol	mg/kg	4	NS	NS	0.17	U	NA		0.18	U	NA	
	Pyridine	mg/kg	500	NS	NS	0.18	U	NA		0.19	U	NA	
	Total SVOCs	mg/kg	NS	100	100	5.1		NA		1.57		NA	
PCBs													
	Aroclor 1016	mg/kg	1	NS	NS	0.0343	U	NA		0.0361	U	NA	
	Aroclor 1221	mg/kg	1	NS	NS	0.0343	U	NA		0.0361	U	NA	
	Aroclor 1232	mg/kg	1	NS	NS	0.0343	U	NA		0.0361	U	NA	
	Aroclor 1242	mg/kg	1	NS	NS	0.0343	U	NA		0.0361	U	NA	
	Aroclor 1248	mg/kg	1	NS	NS	0.0343	U	NA		0.0361	U	NA	
	Aroclor 1254	mg/kg	1	NS	NS	0.095		NA		0.0406		NA	
	Aroclor 1260	mg/kg	1	NS	NS	0.0343	U	NA		0.0361	U	NA	
	Aroclor 1262	mg/kg	1	NS	NS	0.0343	U	NA		0.0361	U	NA	
	Aroclor 1268	mg/kg	1	NS	NS	0.0343	U	NA		0.0361	U	NA	
	PCBs, Total	mg/kg	1	2	2	0.095		NA		0.0406		NA	
Pesticides													
	Delta-BHC	mg/kg	10	NS	NS	0.00168	U	NA		0.00171	U	NA	
	Lindane	mg/kg	0.003	NS	NS	0.000559	U	NA		0.00057	U	NA	
	Alpha-BHC	mg/kg	50	NS	NS	0.000699	U	NA		0.000712	U	NA	
	Beta-BHC	mg/kg	10	NS	NS	0.00168	U	NA		0.00171	U	NA	
	Heptachlor	mg/kg	0.3	NS	NS	0.000839	U	NA		0.000854	U	NA	
	Aldrin	mg/kg	0.08	NS	NS	0.00168	U	NA		0.00171	U	NA	
	Heptachlor epoxide	mg/kg	0.1	NS	NS	0.00315	U	NA		0.0032	U	NA	
	Endrin	mg/kg	10	NS	NS	0.000699	U	NA		0.000712	U	NA	
	Endrin ketone	mg/kg	NS	NS	NS	0.00168	U	NA		0.00171	U	NA	
	Dieldrin	mg/kg	0.08	NS	NS	0.00105	U	NA		0.00107	U	NA	
	4,4'-DDE	mg/kg	6	NS	NS	0.00168	U	NA		0.00171	U	NA	
	4,4'-DDD	mg/kg	8	NS	NS	0.00168	U	NA		0.00171	U	NA	
	4,4'-DDT	mg/kg	6	NS	NS	0.00315	U	NA		0.00544		NA	
	Endosulfan I	mg/kg	0.5	NS	NS	0.00168	U	NA		0.00171	U	NA	
	Endosulfan II	mg/kg	0.5	NS	NS	0.00168	U	NA		0.00171	U	NA	
	Endosulfan sulfate	mg/kg	NS	NS	NS	0.000699	U	NA		0.000712	U	NA	
	Methoxychlor	mg/kg	200	NS	NS	0.00315	U	NA		0.0032	U	NA	
	Chlordane	mg/kg	0.7	NS	NS	0.014	U	NA		0.0142	U	NA	
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.00168	U	NA		0.00171	U	NA	
Herbicides													
	MCP	mg/kg	NS	NS	NS	3.5	U	NA		3.6	U	NA	
	MCPA	mg/kg	100	NS	NS	3.5	U	NA		3.6	U	NA	
	Dalapon	mg/kg	1,000	NS	NS	0.035	U	NA		0.036	U	NA	
	Dicamba	mg/kg	500	NS	NS	0.035	U	NA		0.036	U	NA	
	Dichloroprop	mg/kg	NS	NS	NS	0.035	U	NA		0.036	U	NA	
	2,4-D	mg/kg	100	NS	NS	0.035	U	NA		0.036	U	NA	
	2,4-DB	mg/kg	100	NS	NS	0.035	U	NA		0.036	U	NA	
	2,4,5-T	mg/kg	100	NS	NS	0.035	U	NA		0.036	U	NA	
	2,4,5-TP (Silvex)	mg/kg	100	NS	NS	0.035	U	NA		0.036	U	NA	

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location: Sample Name: Lab Sample ID: Sample Date:						GLC-VMF(48)-RCS-2-FILL(24)-DC				GLC-VMF(9H)-RCS-2-FILL(5)-DC			
						GLC-VMF(48)-RCS-2-FILL(24)-DC-COMP		GLC-VMF(48)-RCS-2-FILL(24)-DC-VOC-3		GLC-VMF(9H)-RCS-2-FILL(5)-DC-COMP		GLC-VMF(9H)-RCS-2-FILL(5)-DC-VOC-5	
						L2104491-01		L2104491-02		L2105273-05		L2105273-06	
						1/27/2021		1/27/2021		2/3/2021		2/3/2021	
Analysis	Analyte	Units	RCS-1	MA Unlined Landfill*	MA Lined Landfill*								
TPH													
	TPH (C10-C36)	mg/kg	1,000	2,500	5,000	79		NA		76.8		NA	
Metals, total													
	Antimony	mg/kg	20	NS	NS	2.06	U	NA		2.11	U	NA	
	Arsenic	mg/kg	20	40	40	4.49		NA		4.24		NA	
	Barium	mg/kg	1,000	NS	NS	32.2		NA		27.1		NA	
	Beryllium	mg/kg	90	NS	NS	0.206	U	NA		0.211	U	NA	
	Cadmium	mg/kg	70	30	80	0.526		NA		0.561		NA	
	Chromium	mg/kg	100	1,000	1,000	19.2		NA		14.4		NA	
	Lead	mg/kg	200	1,000	2,000	22.6		NA		19.7		NA	
	Mercury	mg/kg	20	10	10	0.077	U	NA		0.075	U	NA	
	Nickel	mg/kg	600	NS	NS	12.2		NA		11.9		NA	
	Selenium	mg/kg	400	NS	NS	2.06	U	NA		2.11	U	NA	
	Silver	mg/kg	100	NS	NS	0.411	U	NA		0.422	U	NA	
	Thallium	mg/kg	8	NS	NS	2.06	U	NA		2.11	U	NA	
	Vanadium	mg/kg	400	NS	NS	26.8		NA		30.1		NA	
	Zinc	mg/kg	1,000	NS	NS	39.8		NA		43.3		NA	
General Chemistry													
	Specific Conductance	umhos/cm	NS	4,000	8,000	40		NA		100		NA	
	pH	SU	NS	NS	NS	8.1		NA		8.1		NA	
	Cyanide, Reactive	mg/kg	NS	NS	NS	10	U	NA		10	U	NA	
	Sulfide, Reactive	mg/kg	NS	NS	NS	10	U	NA		10	U	NA	
	Ignitability		NS	NS	NS	NI		NA		NI		NA	

Notes:

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

su - Standard unit.

umhos/cm - Micro-mhos per centimeter.

I - The lower value for the two columns has been reported due to obvious interference.

ND - Not detected.

NI - Not ignitable.

NA - Sample not analyzed for the listed analyte.

NS - No MassDEP standards exist for this analyte.

P - The relative percent difference (RPD) between the results for the two columns exceeds the method-specified criteria.

U - Analyte was not detected at specified quantitation limit.

Values in **bold** indicate the analyte was detected.

VOCs - Volatile Organic Compounds.

SVOCs - Semivolatile Organic Compounds.

PCBs - Polychlorinated Biphenyls.

TPH - Total Petroleum Hydrocarbons.

RC - Reportable concentration.

(1) - MassDEP RC for C9-C10 aromatics used.

(2) - Criteria applicable to xylene (total), the sum of the xylene isomers.

(3) - MassDEP RC for Dichloropropane used.

(4) - MassDEP RC for Dichloropropene used.

(5) - MassDEP RC for Chlorotoluene used.

* - Reuse and Disposal of Contaminated Soil at Massachusetts Landfills, MassDEP Policy # COMM-97-001, August 1997.

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location:						GLC-VMF(48)- RCS-2-FILL(48)		GLC-WASHPS			GLC- OSCDRILLSPOILS		GLC-VMF(20)- RCS-1-FILL(16)		GLC-1001B-(0-3)		GLC-NP-314-15				
						GLC-VMF(48)- RCS-2-FILL(48)- DC-COMP/GLC- VMF(48)-RCS-2- FILL(48)-DC-VOC- 7		GLC-WASHPS- 40821-DC-COMP (0-2)/GLC- WASHPS-40821- DC-VOC (1-2)		GLC-WASHPS- 041221-DC- COMP/GLC- WASHPS-041221- DC-VOC-6		OSCDRILLSPOIL S-210329-DC- COMP/GLC- OSCDRILLSPOIL S-210329-DC-VOC 8		GLC-VMF(20)- RCS-1-FILL(16)- DC-COMP/GLC- VMF(20)-RCS-1- FILL(16)-DC-VOC 2		GLC-1001B-(0-3)- 041521-DC- COMP/GLC-1001B- (0-3)-041521-DC- VOC-3		GLC-NP-314-15- DC-COMP/GLC- NP-314-15-DC- VOC(4)			
						Sample Name*:		Sample Depth*:		Sample Date:											
						N/A/7 ft 4/6/2021				4/8/2021		N/A/6 ft 4/23/2021		N/A/6 ft 4/23/2021		N/A/8 ft 4/28/2021		N/A/3 ft 4/28/2021		N/A/4 ft 6/10/2021	
Analysis	Analyte	Unit	RCS-1	Unlined Landfill*	Lined Landfill*																
VOCs	Methylene chloride	mg/kg	0.1	NS	NS	0.0026	U	0.0038	U	0.0042	U	0.0038	U	0.0028	U	0.0036	U	0.0026	U		
	1,1-Dichloroethane	mg/kg	0.4	NS	NS	0.00051	U	0.00077	U	0.00083	U	0.00076	U	0.00057	U	0.00072	U	0.00052	U		
	Chloroform	mg/kg	0.2	NS	NS	0.00077	U	0.0012	U	0.0012	U	0.0011	U	0.00085	U	0.0011	U	0.00078	U		
	Carbon tetrachloride	mg/kg	5	NS	NS	0.00051	U	0.00077	U	0.00083	U	0.00076	U	0.00057	U	0.00072	U	0.00052	U		
	1,2-Dichloropropane	mg/kg	0.1	NS	NS	0.00051	U	0.00077	U	0.00083	U	0.00076	U	0.00057	U	0.00072	U	0.00052	U		
	Dibromochloromethane	mg/kg	0.005	NS	NS	0.00051	U	0.00077	U	0.00083	U	0.00076	U	0.00057	U	0.00072	U	0.00052	U		
	1,1,2-Trichloroethane	mg/kg	0.1	NS	NS	0.00051	U	0.00077	U	0.00083	U	0.00076	U	0.00057	U	0.00072	U	0.00052	U		
	Tetrachloroethene	mg/kg	1	NS	NS	0.00034	U	0.0024	U	0.0010	U	0.00056	U	0.00040	U	0.00036	U	0.00041	U		
	Chlorobenzene	mg/kg	1	NS	NS	0.00026	U	0.00038	U	0.00042	U	0.00038	U	0.00028	U	0.00036	U	0.00026	U		
	Trichlorofluoromethane	mg/kg	1,000	NS	NS	0.0020	U	0.0031	U	0.0033	U	0.0030	U	0.0023	U	0.0029	U	0.0021	U		
	1,2-Dichloroethane	mg/kg	0.1	NS	NS	0.00051	U	0.00077	U	0.00083	U	0.00076	U	0.00057	U	0.00072	U	0.00052	U		
	1,1,1-Trichloroethane	mg/kg	30	NS	NS	0.00026	U	0.00038	U	0.00042	U	0.00038	U	0.00028	U	0.00036	U	0.00026	U		
	Bromodichloromethane	mg/kg	0.1	NS	NS	0.00026	U	0.00038	U	0.00042	U	0.00038	U	0.00028	U	0.00036	U	0.00026	U		
	trans-1,3-Dichloropropene	mg/kg	0.01	NS	NS	0.00051	U	0.00077	U	0.00083	U	0.00076	U	0.00057	U	0.00072	U	0.00052	U		
	cis-1,3-Dichloropropene	mg/kg	0.01	NS	NS	0.00026	U	0.00038	U	0.00042	U	0.00038	U	0.00028	U	0.00036	U	0.00026	U		
	1,3-Dichloropropene, Total	mg/kg	0.01	NS	NS	0.00026	U	0.00038	U	0.00042	U	0.00038	U	0.00028	U	0.00036	U	0.00026	U		
	1,1-Dichloropropene	mg/kg	0.01(4)	NS	NS	0.00026	U	0.00038	U	0.00042	U	0.00038	U	0.00028	U	0.00036	U	0.00026	U		
	Bromoform	mg/kg	0.1	NS	NS	0.0020	U	0.0031	U	0.0033	U	0.0030	U	0.0023	U	0.0029	U	0.0021	U		
	1,1,2,2-Tetrachloroethane	mg/kg	0.005	NS	NS	0.00026	U	0.00038	U	0.00042	U	0.00038	U	0.00028	U	0.00036	U	0.00026	U		
	Benzene	mg/kg	2	NS	NS	0.00026	U	0.00038	U	0.00042	U	0.00038	U	0.00028	U	0.00035	U	0.00026	U		
	Toluene	mg/kg	30	NS	NS	0.00051	U	0.00079	U	0.00083	U	0.00076	U	0.00057	U	0.00072	U	0.00052	U		
	Ethylbenzene	mg/kg	40	NS	NS	0.00051	U	0.00077	U	0.00083	U	0.00076	U	0.00057	U	0.00072	U	0.00052	U		
	Chloromethane	mg/kg	100	NS	NS	0.0020	U	0.0031	U	0.0033	U	0.0030	U	0.0023	U	0.0029	U	0.0021	U		
	Bromomethane	mg/kg	0.5	NS	NS	0.0010	U	0.0015	U	0.0017	U	0.0015	U	0.0011	U	0.0014	U	0.0010	U		
	Vinyl chloride	mg/kg	0.7	NS	NS	0.00051	U	0.00077	U	0.00083	U	0.00076	U	0.00057	U	0.00072	U	0.00052	U		
	Chloroethane	mg/kg	100	NS	NS	0.0010	U	0.0015	U	0.0017	U	0.0015	U	0.0011	U	0.0014	U	0.0010	U		
	1,1-Dichloroethene	mg/kg	3	NS	NS	0.00051	U	0.00077	U	0.00083	U	0.00076	U	0.00057	U	0.00072	U	0.00052	U		
	trans-1,2-Dichloroethene	mg/kg	1	NS	NS	0.00077	U	0.0012	U	0.0012	U	0.0011	U	0.00085	U	0.0011	U	0.00078	U		
	Trichloroethene	mg/kg	0.3	NS	NS	0.00026	U	0.00038	U	0.00042	U	0.00038	U	0.00028	U	0.00036	U	0.00026	U		
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	0.0010	U	0.0015	U	0.0017	U	0.0015	U	0.0011	U	0.0014	U	0.0010	U		
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	0.0010	U	0.0015	U	0.0017	U	0.0015	U	0.0011	U	0.0014	U	0.0010	U		
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	0.0010	U	0.0015	U	0.0017	U	0.0015	U	0.0011	U	0.0014	U	0.0010	U		
	Methyl tert butyl ether	mg/kg	0.1	NS	NS	0.0010	U	0.0015	U	0.0017	U	0.0015	U	0.0011	U	0.0014	U	0.0010	U		
	p/m-Xylene	mg/kg	100(2)	NS	NS	0.0010	U	0.0015	U	0.0017	U	0.0015	U	0.0011	U	0.0014	U	0.0010	U		
	o-Xylene	mg/kg	100(2)	NS	NS	0.00051	U	0.00077	U	0.00083	U	0.00076	U	0.00057	U	0.00072	U	0.00052	U		
	Xylenes (Total)	mg/kg	100	NS	NS	0.00051	U	0.00077	U	0.00083	U	0.00076	U	0.00057	U	0.00072	U	0.00052	U		
	cis-1,2-Dichloroethene	mg/kg	0.1	NS	NS	0.00051	U	0.00077	U	0.00083	U	0.00076	U	0.00057	U	0.00072	U	0.00052	U		
	1,2-Dichloroethene (total)	mg/kg	0.3	NS	NS	0.00051	U	0.00077	U	0.00083	U	0.00076	U	0.00057	U	0.00072	U	0.00052	U		
	Dibromomethane	mg/kg	500	NS	NS	0.0010	U	0.0015	U	0.0017	U	0.0015	U	0.0011	U	0.0014	U	0.0010	U		
	1,2,3-Trichloropropane	mg/kg	100	NS	NS	0.0010	U	0.0015	U	0.0017	U	0.0015	U	0.0011	U	0.0014	U	0.0010	U		
	Styrene	mg/kg	3	NS	NS	0.00051	U	0.00077	U	0.00083	U	0.00076	U	0.00057	U	0.00072	U	0.00052	U		
	Dichlorodifluoromethane	mg/kg	1,000	NS	NS	0.0051	U	0.0077	U	0.0083	U	0.0076	U	0.0057	U	0.0072	U	0.0052	U		
	Acetone	mg/kg	6	NS	NS	0.013	U	0.019	U	0.036	U	0.02	U	0.014	U	0.018	U	0.015	U		
	Carbon disulfide	mg/kg	100	NS	NS	0.0051	U	0.0077	U	0.0083	U	0.0076	U	0.0057	U	0.0072	U	0.0052	U		
	2-Butanone	mg/kg	4	NS	NS	0.0051	U	0.0077	U	0.0083	U	0.0076	U	0.0057	U	0.0072	U	0.0052	U		
	4-Methyl-2-pentanone	mg/kg	0.4	NS	NS	0.0051	U	0.0077	U	0.0083	U	0.0076	U	0.0057	U	0.0072	U	0.0052	U		
	2-H																				

Table 2 - Soil Characterization Analytical Results
Washington Street - RTN 3-34742
Somerville, Massachusetts

Sample Location:						GLC-VMF(48)- RCS-2-FILL(48)		GLC-WASHPS				GLC- OSCDRILLSPOILS		GLC-VMF(20)- RCS-1-FILL(16)		GLC-100IB-(0-3)		GLC-NP-314-15			
						GLC-VMF(48)- RCS-2-FILL(48)- DC-COMP/GLC- VMF(48)-RCS-2- FILL(48)-DC-VOC- 7		GLC-WASHPS- 40821-DC-COMP (0-2)/GLC- WASHPS-40821- DC-VOC (1-2)		GLC-WASHPS- 041221-DC- COMP/GLC- WASHPS-041221- DC-VOC-6		OSCDRILLSPOIL S-210329-DC- COMP/GLC- OSCDRILLSPOIL S-210329-DC-VOC 8		GLC-VMF(20)- RCS-1-FILL(16)- DC-COMP/GLC- VMF(20)-RCS-1- FILL(16)-DC-VOC 2		GLC-100IB-(0-3)- 041521-DC- COMP/GLC-100IB- (0-3)-041521-DC- VOC-3		GLC-NP-314-15- DC-COMP/GLC- NP-314-15-DC- VOC(4)			
						Sample Name*:		N/A/7 ft		0-2/1-2 ft		N/A/6 ft		N/A/8 ft		N/A/2 ft		N/A/3 ft		N/A/4 ft	
						Sample Depth*:		4/6/2021		4/8/2021		4/23/2021		4/23/2021		4/28/2021		4/28/2021		6/10/2021	
Sample Date:																					
Analysis	Analyte	Unit	RCS-1	Unlined Landfill*	Lined Landfill*																
PCBs																					
	Aroclor-1016	mg/kg	1	NS	NS	0.0391	U	0.0368	U	0.0387	U	0.0346	U	0.0357	U	0.0349	U	0.0362	U		
	Aroclor-1221	mg/kg	1	NS	NS	0.0391	U	0.0368	U	0.0387	U	0.0346	U	0.0357	U	0.0349	U	0.0362	U		
	Aroclor-1232	mg/kg	1	NS	NS	0.0391	U	0.0368	U	0.0387	U	0.0346	U	0.0357	U	0.0349	U	0.0362	U		
	Aroclor-1242	mg/kg	1	NS	NS	0.0391	U	0.0368	U	0.0387	U	0.0346	U	0.0357	U	0.0349	U	0.0362	U		
	Aroclor-1248	mg/kg	1	NS	NS	0.0391	U	0.0368	U	0.0387	U	0.0346	U	0.0357	U	0.0349	U	0.0362	U		
	Aroclor-1254	mg/kg	1	NS	NS	0.0606		0.0368	U	0.0387	U	0.0346	U	0.0794		0.0451		0.0362	U		
	Aroclor-1260	mg/kg	1	NS	NS	0.0391	U	0.0368	U	0.0387	U	0.0346	U	0.0357	U	0.0349	U	0.0362	U		
	Aroclor-1262	mg/kg	1	NS	NS	0.0391	U	0.0368	U	0.0387	U	0.0346	U	0.0357	U	0.0349	U	0.0362	U		
	Aroclor-1268	mg/kg	1	NS	NS	0.0391	U	0.0368	U	0.0387	U	0.0346	U	0.0357	U	0.0349	U	0.0362	U		
	Total PCBs	mg/kg	1	2	2	0.0606		0.0368	U	0.0387	U	0.0346	U	0.0794		0.0451		0.0362	U		
Pesticides																					
	Delta-BHC	mg/kg	10	NS	NS	0.00183	U	0.00184	U	0.00177	U	0.00170	U	0.00168	U	0.00169	U	0.00172	U		
	Lindane	mg/kg	0.003	NS	NS	0.000609	U	0.000614	U	0.000590	U	0.000566	U	0.000560	U	0.000564	U	0.000575	U		
	Alpha-BHC	mg/kg	50	NS	NS	0.000761	U	0.000767	U	0.000738	U	0.000707	U	0.000701	U	0.000704	U	0.000719	U		
	Beta-BHC	mg/kg	10	NS	NS	0.00183	U	0.00184	U	0.00177	U	0.00170	U	0.00168	U	0.00169	U	0.00172	U		
	Heptachlor	mg/kg	0.3	NS	NS	0.000913	U	0.000920	U	0.000886	U	0.000848	U	0.000841	U	0.000845	U	0.000862	U		
	Aldrin	mg/kg	0.08	NS	NS	0.00183	U	0.00184	U	0.00177	U	0.00170	U	0.00168	U	0.00169	U	0.00172	U		
	Heptachlor epoxide	mg/kg	0.1	NS	NS	0.00342	U	0.00345	U	0.00332	U	0.00318	U	0.00315	U	0.00317	U	0.00323	U		
	Endrin	mg/kg	10	NS	NS	0.000761	U	0.000767	U	0.000738	U	0.000707	U	0.000701	U	0.000704	U	0.000719	U		
	Endrin ketone	mg/kg	NS	NS	NS	0.00183	U	0.00184	U	0.00177	U	0.00170	U	0.00168	U	0.00169	U	0.00172	U		
	Dieldrin	mg/kg	0.08	NS	NS	0.00114	U	0.00115	U	0.00111	U	0.00106	U	0.00105	U	0.00106	U	0.00108	U		
	4,4'-DDE	mg/kg	6	NS	NS	0.00183	U	0.00184	U	0.00177	U	0.00170	U	0.00348		0.00210	P	0.00172	U		
	4,4'-DDD	mg/kg	8	NS	NS	0.00183	U	0.00184	U	0.00177	U	0.00170	U	0.00518		0.00316		0.00236			
	4,4'-DDT	mg/kg	6	NS	NS	0.00342	U	0.00345	U	0.00332	U	0.00318	U	0.0103	P	0.00317	U	0.0102	P		
	Endosulfan I	mg/kg	0.5	NS	NS	0.00183	U	0.00184	U	0.00177	U	0.00170	U	0.00168	U	0.00169	U	0.00172	U		
	Endosulfan II	mg/kg	0.5	NS	NS	0.00183	U	0.00184	U	0.00177	U	0.00170	U	0.00168	U	0.00169	U	0.00172	U		
	Endosulfan sulfate	mg/kg	0.5	NS	NS	0.000761	U	0.000767	U	0.000738	U	0.000707	U	0.000701	U	0.000704	U	0.000719	U		
	Methoxychlor	mg/kg	200	NS	NS	0.00342	U	0.00345	U	0.00332	U	0.00318	U	0.00315	U	0.00317	U	0.00323	U		
	Chlordane	mg/kg	0.7	NS	NS	0.0152	U	0.0153	U	0.0148	U	0.0141	U	0.0140	U	0.0141	U	0.0144	U		
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.00183	U	0.00184	U	0.00177	U	0.00170	U	0.00168	U	0.00169	U	0.00172	U		
Herbicides																					
	MCPP	mg/kg	NS	NS	NS	3.9	U	3.8	U	3.9	U	3.5	U	3.6	U	3.5	U	3.6	U		
	MCPA	mg/kg	100	NS	NS	3.9	U	3.8	U	3.9	U	3.5	U	3.6	U	3.5	U	3.6	U		
	Dalapon	mg/kg	1,000	NS	NS	0.039	U	0.038	U	0.039	U	0.035	U	0.036	U	0.035	U	0.036	U		
	Dicamba	mg/kg	500	NS	NS	0.039	U	0.038	U	0.039	U	0.035	U	0.036	U	0.035	U	0.036	U		
	Dichloroprop	mg/kg	NS	NS	NS	0.039	U	0.038	U	0.039	U	0.035	U	0.036	U	0.035	U	0.036	U		
	2,4-D	mg/kg	100	NS	NS	0.039	U	0.038	U	0.039	U	0.035	U	0.036	U	0.035	U	0.036	U		
	2,4-DB	mg/kg	100	NS	NS	0.039	U	0.038	U	0.039	U	0.035	U	0.036	U	0.035	U	0.036	U		
	2,4,5-T	mg/kg	100	NS	NS	0.039	U	0.038	U	0.039	U	0.035	U	0.036	U	0.035	U	0.036	U		
	2,4,5-TP (Silvex)	mg/kg	100	NS	NS	0.039	U	0.038	U	0.039	U	0.035	U	0.036	U	0.035	U	0.036	U		
TPH																					
	Total Petroleum Hydrocarbons C10-C36	mg/kg	1,000	2,500	5,000	39.3	U	75.4		65.7		64.1		48.8		107		682			
Metals, total																					
	Antimony	mg/kg	20	NS	NS	2.33	U	2.19	U	2.26	U	2.09	U	2.10	U	2.06	U	2.13	U		
	Arsenic	mg/kg	20	40	40	5.50		2.58		7.48		6.68		2.24		1.64		7.25			
	Barium	mg/kg	1,000	NS	NS	51.0		35.8		41.5		35.1		46.4		51.7					
	Beryllium	mg/kg	90	NS	NS	0.270		0.373		0.226	U	0.209	U	0.315		0.362		0.392			
	Cadmium	mg/kg	70	30	80	0.536		0.439	U	0.488		0.418		0.420	U	0.486		0.537			
	Chromium	mg/kg	100	1,000	1,000	22.0		9.72		19.3		19.4		20.5		24.3		16.1			
	Lead	mg/kg	200	1,000	2,000	18.8		27.6		78.8		87.7		20.7		25.8		133			
	Mercury	mg/kg	20	10	10	0.086	U	0.078	U	0.252		0.090		0.134		0.199		0.242			
	Nickel	mg/kg	600	NS	NS	17.7		7.44		14.0		11.3		15.8		15.4		11.9			
	Selenium	mg/kg	400	NS	NS	2.33	U	2.19	U	2.26	U	2.09	U	2.10	U	2.06	U	2.13	U		
	Silver	mg/kg	100	NS	NS	0.466	U	0.439	U	0.451	U	0.418	U	0.420	U	0.412	U	0.426	U		
	Thallium	mg/kg	8	NS	NS	2.33	U	2.19	U	2.26	U	2.09	U	2.10	U	2.06	U	2.13	U		
	Vanadium	mg/kg	400	NS	NS	49.2		12.0		24.8		25.8		43.9		45.8		25.0			
	Zinc	mg/kg	1,000	NS	NS	43.6		21.1		75.7		48.7		56.8		71.0		123			
Metals, TCLP																					
	Lead	mg/L	5**	NS	NS	NA		NA		NA		NA		NA		NA		0.500	U		
General Chemistry																					
	Ignitability		NS	NS	NS	NI		NI		NI		NI		NI		NI		NI			
	Reactive Cyanide	mg/kg	NS	< 250	< 250	10	U	10	U	10	U	10	U	10	U	10	U	10	U		
	Reactive Sulfide	mg/kg	NS	< 500	< 500	10	U	10	U	10	U	10	U	10	U	10	U	10	U		
	pH	su	NS	>2 <12.5	>2 <12.5	8.5		8.3		8.6		8.2		8.1		8.3		8.4			
	Specific conductance	umhos/cm	NS	4,000	8,000	86		69		53		82		53		68		110			

TABLE 1
SOIL SAMPLING SUMMARY

<u>Collection Date</u>	<u>Collection Method</u>	<u>Disposal Sample ID(s)</u>	<u>Receiving Facility or Anticipated Receiving Facility</u>	<u>Disposal Package (Approval Number)</u>
10/7/2021	Stockpile	GLC-NP-306A-18-C-DC-COMP GLC-NP-306A-18-C-DC-VOC-7	Niagara	Niagara No. 6
10/22/2021	Stockpile	GLC-WSPTOPCLEAN-DC-COMP GLC-WSPTOPCLEAN-DC-VOC-7	Lynn	Lynn No. 2 Amendment #4
11/9/2021	Stockpile	GLC-WASHPSED102221-DC-COMP GLC-WASHPSED102221-DC-VOC-3	Lynn	Lynn No. 2 Amendment #5
11/11/2021	Stockpile	GLC-NP-318B-02-DC-COMP GLC-NP-318B-02-DC-VOC-4	Heritage	Heritage No. 2 Amendment #4
12/20/2021	Stockpile	GLC-WASHPS20211213-DC-COMP GLC-WASHPS20211213-DC-VOC-06	Lynn	Lynn No. 2 Amendment #6
1/12/2022	Stockpile	GLC-WASHPUMP20210805RU-COMP GLC-WASHPUMP20210805RU-VOC(5)	Lynn	Lynn No. 2 Amendment #7

Receiving Facilities: Lynn Landfill Company, LLC. - Marine Boulevard to 25 Riley Way Extension, Lynn, MA 01905
Allied Niagara Falls Landfill – 5600 Niagara Fall Boulevard, Niagara Falls, NY 14304
Heritage Environmental Services – 4370 W. County Road 1275 N., Roachdale, IN 46172

Table 2 -- Soil Characterization Analytical Results -- October, November, and December 2021 and January 2022
Washington Street
MBTA Green Line Extension Project

Sample Location		GLC-NP-306A-18-C-DC	GLC-WASHPSSED-GLC-	GLC-WSPTOPCLEA	NP-318B-02-DC	WASHPS20211-213-DC	WASHPUM202100SRU/GLC
Sample Name:		GLC-NP-306A-18-C-DC COMP/CLC-NP-306A-18-C-DC-VOC7	GLC-WASHPSSED10-2221-DC COMP/CLC-NP-306A-18-C-DC-VOC7	GLC-WSPTOPCLEA-N-DC COMP/CLC-WSPTOPCLEA-N-DC-VOC7	GLC-NP-318B-02-DC COMP/CLC-NP-318B-02-DC-VOC4	GLC-WASHPS20211-213-DC COMP/CLC-WASHPS2021-213-DC-VOC06	GLC-WASHPUM2021080SRU-COMP/CLC-WASHPUM2021080SRU-VOC5
Lab Sample ID#		L2154830-0506L2155291-02	L2161496-0102	L2158092-0102	L216171-0102	L2170050-0102	L2102603-0102
Sample Depth: Sample Date:		N/A/7 10/7/2021	N/A/3 11/9/2021	N/A/7 10/22/2021	N/A/4 11/1/2021	N/A/6 12/20/2021	N/A/5 1/12/2022
Analysis VOCS	Analyte	Unit	RCS-1	Unlined Landfill*	Lined Landfill†		
	Methylene chloride	mg/kg	0.1	NS	NS	0.27	U
	1,1-Dichloroethane	mg/kg	0.4	NS	NS	0.084	U
	Chloroform	mg/kg	0.2	NS	NS	0.051	U
	Carbon tetrachloride	mg/kg	5	NS	NS	0.054	U
	1,2-Dichloropropane	mg/kg	0.1	NS	NS	0.054	U
	Dibromochloromethane	mg/kg	0.005	NS	NS	0.054	U
	1,1,2-Trichloroethane	mg/kg	0.1	NS	NS	0.054	U
	Tetrachloroethene	mg/kg	1	NS	NS	0.05	0.023
	Chlorobenzene	mg/kg	1	NS	NS	0.027	U
	Trichlorofluoromethane	mg/kg	1,000	NS	NS	0.022	U
	1,2-Dichloroethane	mg/kg	0.1	NS	NS	0.054	U
	1,1,1-Trichloroethane	mg/kg	30	NS	NS	0.027	U
	Bromodichloromethane	mg/kg	0.1	NS	NS	0.027	U
	trans-1,3-Dichloropropene	mg/kg	0.01	NS	NS	0.054	U
	cis-1,3-Dichloropropene	mg/kg	0.01	NS	NS	0.027	U
	1,3-Dichloropropene, Total	mg/kg	0.01	NS	NS	0.027	U
	1,1-Dichloropropene	mg/kg	0.01(4)	NS	NS	0.027	U
	Bromoforn	mg/kg	0.1	NS	NS	0.022	U
	1,1,2,2-Tetrachloroethane	mg/kg	0.005	NS	NS	0.027	U
	Benzene	mg/kg	2	NS	NS	0.18	0.0070
	Toluene	mg/kg	30	NS	NS	0.32	0.0014
	Ethylbenzene	mg/kg	40	NS	NS	0.41	0.0014
	Chloromethane	mg/kg	100	NS	NS	0.22	0.0056
	Bromomethane	mg/kg	0.5	NS	NS	0.11	0.0028
	Vinyl chloride	mg/kg	0.7	NS	NS	0.054	0.0014
	Chloroethane	mg/kg	100	NS	NS	0.11	0.0028
	1,1-Dichloroethane	mg/kg	3	NS	NS	0.054	0.0014
	trans-1,2-Dichloroethene	mg/kg	1	NS	NS	0.081	0.0021
	Trichloroethene	mg/kg	0.3	NS	NS	0.027	0.0034
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	0.11	0.0028
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	0.11	0.0028
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	0.11	0.0028
	Methyl tert butyl ether	mg/kg	0.1	NS	NS	0.11	0.0028
	p-m-Xylene	mg/kg	100(2)	NS	NS	0.49	0.0028
	o-Xylene	mg/kg	100(2)	NS	NS	0.19	0.0014
	Xylenes (Total)	mg/kg	100	NS	NS	0.68	0.0014
	cis-1,2-Dichloroethene	mg/kg	0.1	NS	NS	0.054	0.0026
	1,2-Dichloroethane (total)	mg/kg	0.3	NS	NS	0.054	0.0026
	Dibromomethane	mg/kg	500	NS	NS	0.11	0.0028
	1,2,3-Trichloropropane	mg/kg	100	NS	NS	0.11	0.0028
	Styrene	mg/kg	3	NS	NS	0.12	0.0014
	Dichlorodifluoromethane	mg/kg	1,000	NS	NS	0.54	0.0014
	Acetone	mg/kg	6	NS	NS	0.54	0.0035
	Carbon disulfide	mg/kg	100	NS	NS	0.54	0.0014
	2-Butanone	mg/kg	4	NS	NS	0.54	0.0014
	4-Methyl-2-pentanone	mg/kg	0.4	NS	NS	0.54	0.0014
	2-Hexanone	mg/kg	100	NS	NS	0.54	0.0014
	Bromochloromethane	mg/kg	NS	NS	NS	0.11	0.0028
	Tetrahydrofuran	mg/kg	500	NS	NS	0.22	0.0056
	2,2-Dichloropropane	mg/kg	0.1(3)	NS	NS	0.11	0.0028
	1,2-Dibromoethane	mg/kg	0.1	NS	NS	0.054	0.0014
	1,3-Dichloropropane	mg/kg	500	NS	NS	0.11	0.0028
	1,1,1,2-Tetrachloroethane	mg/kg	0.1	NS	NS	0.027	0.00070
	Bromobenzene	mg/kg	100	NS	NS	0.11	0.0028
	n-Butylbenzene	mg/kg	100(1)	NS	NS	0.054	0.0014
	sec-Butylbenzene	mg/kg	100(1)	NS	NS	0.054	0.0014
	tert-Butylbenzene	mg/kg	100	NS	NS	0.11	0.0028
	o-Chlorotoluene	mg/kg	100	NS	NS	0.11	0.0028
	p-Chlorotoluene	mg/kg	100(5)	NS	NS	0.11	0.0028
	1,2-Dibromo-3-chloropropane	mg/kg	10	NS	NS	0.16	0.0042
	Hexachlorobutadiene	mg/kg	30	NS	NS	0.22	0.0056
	Isopropylbenzene	mg/kg	1,000	NS	NS	0.609	0.0014
	p-Isopropyltoluene	mg/kg	100	NS	NS	0.16	0.0071
	Naphthalene	mg/kg	4	NS	NS	5.4	0.014
	n-Propylbenzene	mg/kg	100	NS	NS	0.057	0.0014
	1,2,3-Trichlorobenzene	mg/kg	NS	NS	NS	0.11	0.0028
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	0.11	0.0028
	1,3,5-Trimethylbenzene	mg/kg	10	NS	NS	0.36	0.0028
	1,2,4-Trimethylbenzene	mg/kg	1,000	NS	NS	0.4	0.0028
	Ethyl ether	mg/kg	100	NS	NS	0.11	0.0028
	Isopropyl Ether	mg/kg	100	NS	NS	0.11	0.0028
	Ethyl-Tert-Butyl-Ether	mg/kg	NS	NS	NS	0.098	0.0019
	Tertiary-Amyl Methyl Ether	mg/kg	NS	NS	NS	0.11	0.0028
	1,4-Dioxane	mg/kg	0.2	NS	NS	4.3	0.11
Total VOCs		mg/kg	NS	4	10	8.21	0.043
							0.018
							3.59
							0.016
							0.004

Washington Street
MBTA Green Line Extension Project

Sample Location:				GLC-NP-306A-18-C-DC	GLC-WASHPSSED-	GLC-WSPTOPCLEA	NP-318B-02-DC	WASHPS2011-213-DC	WASHPMP20-21080SRU-GLC-		
Sample Name:				GLC-NP-306A-18-C-DC-COMP/GLC-NP-306A-18-C-DC-VOC-7	GLC-WASHPSSED10-2221-DC-COMP/GLC-WASHPSSED10-2221-DC-VOC-3	GLC-WSPTOPCLEA-N-DC-COMP/GLC-WSPTOPCLEA-N-DC-VOC-7	GLC-NP-318B-02-DC-COMP/GLC-NP-318B-02-DC-VOC-4	GLC-WASHPS2011-213-DC-COMP/GLC-WASHPMP20-21080SRU-VOC (5)	WASHPMP20-21080SRU-GLC-COMP/GLC-WASHPMP20-21080SRU-VOC (5)		
Lab Sample ID:				L2154830-05/06/L2155291-02	L2161496-01/02-N/A/7 R	L2158092-01/02-N/A/7 R	L2162117-01/02-N/A/6 R	L2170050-01/02-N/A/6 R	L2201603-01/02-N/A/6 R		
Sample Depth:				N/A/7 R	N/A/7 R	N/A/7 R	N/A/6 R	N/A/6 R	N/A/6 R		
Sample Date:				10/7/2021	11/9/2021	10/22/2021	11/1/2021	12/20/2021	1/12/2022		
Analysis	Analyte	Unit	RCS-1	Unlined Landfill*	Lined Landfill*						
SVOCs	Aceanaphthene	mg/kg	4	NS	NS	6.2	0.28	0.15	0.15	0.22	0.53
	1,2,4-Trichlorobenzene	mg/kg	2	NS	NS	0.92	0.35	0.19	0.18	0.22	0.67
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.39	0.15	0.079	0.077	0.093	0.28
	Bis(2-chloroethyl)ether	mg/kg	0.7	NS	NS	0.39	0.15	0.079	0.077	0.093	0.28
	2-Chloronaphthalene	mg/kg	1,000	NS	NS	0.92	0.35	0.19	0.18	0.22	0.67
	1,2-Dichlorobenzene	mg/kg	9	NS	NS	0.92	0.35	0.19	0.18	0.22	0.67
	1,3-Dichlorobenzene	mg/kg	3	NS	NS	0.92	0.35	0.19	0.18	0.22	0.67
	1,4-Dichlorobenzene	mg/kg	0.7	NS	NS	0.39	0.15	0.079	0.077	0.093	0.28
	3,3'-Dichlorobenzidine	mg/kg	3	NS	NS	0.92	0.35	0.19	0.18	0.22	0.67
	2,4-Dinitrotoluene	mg/kg	0.7	NS	NS	0.39	0.15	0.079	0.077	0.093	0.28
	2,6-Dinitrotoluene	mg/kg	100	NS	NS	0.92	0.35	0.19	0.18	0.22	0.67
	Azobenzene	mg/kg	NS	NS	NS	0.92	0.35	0.19	0.18	0.22	0.67
	Fluoranthene	mg/kg	1,000	NS	NS	19	1	1.8	1.1	3.5	1.1
	4-Bromophenyl phenyl ether	mg/kg	100	NS	NS	0.92	0.35	0.19	0.18	0.22	0.67
	Bis(2-chloroisopropyl)ether	mg/kg	0.7	NS	NS	0.39	0.15	0.079	0.077	0.093	0.28
	Bis(2-chloroethoxy)methane	mg/kg	500	NS	NS	1	0.38	0.2	0.2	0.24	0.72
	Hexachlorobutadiene	mg/kg	30	NS	NS	0.92	0.35	0.19	0.18	0.22	0.67
	Hexachloroethane	mg/kg	0.7	NS	NS	0.39	0.15	0.079	0.077	0.093	0.28
	Isophorone	mg/kg	100	NS	NS	0.83	0.31	0.17	0.16	0.2	0.6
	Naphthalene	mg/kg	4	NS	NS	11	0.42	0.34	0.18	0.51	0.67
	Nitrobenzene	mg/kg	500	NS	NS	0.83	0.31	0.17	0.16	0.2	0.6
	Bis(2-Ethylhexyl)phthalate	mg/kg	90	NS	NS	0.92	0.35	0.19	0.18	0.22	0.67
	Butyl benzyl phthalate	mg/kg	100	NS	NS	0.92	0.35	0.19	0.18	0.22	0.67
	Di-n-butylphthalate	mg/kg	50	NS	NS	0.92	0.35	0.19	0.18	0.22	0.67
	Di-n-octylphthalate	mg/kg	1,000	NS	NS	0.92	0.35	0.19	0.18	0.22	0.67
	Diethyl phthalate	mg/kg	10	NS	NS	0.92	0.35	0.19	0.18	0.22	0.67
	Dimethyl phthalate	mg/kg	0.7	NS	NS	0.39	0.15	0.079	0.077	0.093	0.28
	Benzol(a)anthracene	mg/kg	7	NS	NS	10	0.45	1.2	0.68	1.8	0.62
	Benzol(a)pyrene	mg/kg	2	NS	NS	10	0.5	1.3	0.66	1.8	0.69
	Benzol(b)fluoranthene	mg/kg	7	NS	NS	10	0.64	1.5	0.74	2.1	0.84
	Benzol(k)fluoranthene	mg/kg	70	NS	NS	3.9	0.21	0.56	0.29	0.67	0.4
	Chrysene	mg/kg	70	NS	NS	9.1	0.51	1.2	0.65	1.8	0.61
	Acenaphthylene	mg/kg	1	NS	NS	8.1	0.31	0.75	0.5	0.53	0.1
	Anthracene	mg/kg	1,000	NS	NS	8.1	0.21	0.41	0.18	0.76	0.4
	Benzof(g,h,i)perylene	mg/kg	1,000	NS	NS	6	0.32	0.88	0.46	1.1	0.53
	Fluorene	mg/kg	1,000	NS	NS	8.8	0.35	0.19	0.18	0.35	0.67
	Phenanthrene	mg/kg	10	NS	NS	24	0.82	0.97	0.54	1.5	0.62
	Dibenzol(a,h)anthracene	mg/kg	0.7	NS	NS	1	0.15	0.19	0.13	0.26	0.28
	Indeno(1,2,3-cd)Pyrene	mg/kg	7	NS	NS	6.4	0.34	0.94	0.54	1.2	0.53
	Pyrene	mg/kg	1,000	NS	NS	20	1	1.8	0.98	3.4	1.1
	Aniline	mg/kg	1,000	NS	NS	1.1	0.4	0.22	0.18	0.27	0.8
	4-Chloroaniline	mg/kg	1	NS	NS	0.92	0.35	0.19	0.18	0.22	0.67
	Dibenzofuran	mg/kg	100	NS	NS	3.4	0.35	0.19	0.18	0.22	0.67
	2-Methylnaphthalene	mg/kg	0.7	NS	NS	6.6	0.35	0.18	0.077	0.28	0.28
	Acetophenone	mg/kg	1,000	NS	NS	0.92	0.35	0.19	0.18	0.22	0.67
	2,4,6-Trichlorophenol	mg/kg	0.7	NS	NS	0.39	0.15	0.079	0.077	0.093	0.28
	2-Chlorophenol	mg/kg	0.7	NS	NS	0.39	0.15	0.079	0.077	0.093	0.28
	2,4-Dichlorophenol	mg/kg	0.7	NS	NS	0.39	0.15	0.079	0.077	0.093	0.28
	2,4-Dimethylphenol	mg/kg	0.7	NS	NS	0.39	0.15	0.079	0.077	0.093	0.28
	2-Nitrophenol	mg/kg	100	NS	NS	0.75	0.35	0.19	0.18	0.22	0.67
4-Nitrophenol	mg/kg	100	NS	NS	1.3	0.49	0.26	0.26	0.31	0.93	
2,4-Dinitrophenol	mg/kg	3	NS	NS	4.4	1.7	0.9	0.88	1.1	3.2	
Pentachlorophenol	mg/kg	3	NS	NS	1.8	0.7	0.38	0.36	0.44	1.3	
Phenol	mg/kg	1	NS	NS	0.92	0.35	0.19	0.18	0.22	0.67	
2-Methylphenol	mg/kg	500	NS	NS	0.92	0.35	0.19	0.18	0.22	0.67	
3/4-Methylphenol	mg/kg	NS	NS	NS	1.3	0.5	0.27	0.26	0.32	0.96	
2,4,5-Trichlorophenol	mg/kg	4	NS	NS	0.92	0.35	0.19	0.18	0.22	0.67	
Pyridine	mg/kg	500	NS	NS	1.8	0.8	0.2	0.24	0.24	0.73	
Biphenyl	mg/kg	0.05	NS	NS	NA	0.8	0.42	0.42	0.045	0.13	
Total SVOCs	mg/kg	NS	100	100	168	6.21	13.8	6.95	21.8	5.58	
PCBs	Aroclor-1016	mg/kg	1	NS	NS	0.0369	0.0695	0.0372	0.0350	0.0434	0.0480
	Aroclor-1221	mg/kg	1	NS	NS	0.0369	0.0695	0.0372	0.0350	0.0434	0.0480
	Aroclor-1232	mg/kg	1	NS	NS	0.0369	0.0695	0.0372	0.0350	0.0434	0.0480
	Aroclor-1242	mg/kg	1	NS	NS	0.236	0.0695	0.0372	0.0350	0.0434	0.0480
	Aroclor-1248	mg/kg	1	NS	NS	0.0369	0.0695	0.0372	0.0350	0.0434	0.0480
	Aroclor-1254	mg/kg	1	NS	NS	0.0879	0.0695	0.0372	0.0350	0.0434	0.0480
	Aroclor-1260	mg/kg	1	NS	NS	0.0438	0.0695	0.0372	0.0350	0.0434	0.0480
	Aroclor-1262	mg/kg	1	NS	NS	0.0369	0.0695	0.0372	0.0350	0.0434	0.0480
	Aroclor-1268	mg/kg	1	NS	NS	0.0369	0.0695	0.0372	0.0350	0.0434	0.0480
	Total PCBs	mg/kg	1	2	2	0.367	0.0695	0.0372	0.0350	0.0434	0.0480

Table 2 -- Soil Characterization Analytical Results -- October, November, and December 2021 and January 2022
Washington Street
MBTA Green Line Extension Project

Sample Location:						GLC-NP-306A-18-C-DC	GLC-WASHPSSED-18-C-DC	GLC-WSPTOPCLEA-18-C-DC	NP-318B-02-DC	WASHPS20211-213-DC	WASHPUMP20-210805RU-GLC-COMP/CLC-WASHPUMP20-210805RU-VOC(5)						
Sample Name:						GLC-NP-306A-18-C-DC-COMP/CLC-NP-306A-18-C-DC-VOC-7	GLC-WASHPSSED10-2221-DC-COMP/CLC-WASHPSSED10-2221-DC-VOC-3	GLC-WSPTOPCLEA-N-DC-COMP/CLC-WSPTOPCLEA-N-DC-VOC-7	GLC-NP-318B-02-DC-COMP/CLC-NP-318B-02-DC-VOC-4	GLC-WASHPS20211-213-DC-COMP/CLC-WASHPS20211-213-DC-VOC-06							
Lab Sample ID:						L2154830-05/06/L2155291-02	L2161496-01/02	L2158092-01/02	L2162117-01/02	L2170050-01/02	L2201603-01/02						
Sample Depth:						N/A/7 ft	N/A/3 ft	N/A/7 ft	N/A/4 ft	N/A/6 ft	N/A/5 ft						
Sample Date:						10/7/2021	11/9/2021	10/22/2021	11/11/2021	12/20/2021	1/12/2022						
Analysis	Analyte	Unit	RCS-1	Unlined Landfill*	Lined Landfill*												
Pesticides																	
	Delta-BHC	mg/kg	10	NS	NS	0.0176	U	0.00325	U	0.00176	U	0.00173	U	0.00594	U	0.00231	U
	Lindane	mg/kg	0.003	NS	NS	0.00588	U	0.00108	U	0.000587	U	0.000577	U	0.00198	U	0.000771	U
	Alpha-BHC	mg/kg	50	NS	NS	0.00735	U	0.00136	U	0.000733	U	0.000721	U	0.00247	U	0.000964	U
	Beta-BHC	mg/kg	10	NS	NS	0.0176	U	0.00325	U	0.00176	U	0.00173	U	0.00594	U	0.00231	U
	Heptachlor	mg/kg	0.3	NS	NS	0.00882	U	0.00163	U	0.000880	U	0.000866	U	0.00297	U	0.00116	U
	Aldrin	mg/kg	0.08	NS	NS	0.0176	U	0.00325	U	0.00176	U	0.00173	U	0.00594	U	0.00231	U
	Heptachlor epoxide	mg/kg	0.1	NS	NS	0.0331	U	0.00610	U	0.00330	U	0.00325	U	0.0111	U	0.00434	U
	Endrin	mg/kg	10	NS	NS	0.00735	U	0.00136	U	0.000733	U	0.000721	U	0.00247	U	0.000964	U
	Endrin ketone	mg/kg	10	NS	NS	0.0176	U	0.00325	U	0.00176	U	0.00173	U	0.00594	U	0.00231	U
	Dieldrin	mg/kg	0.08	NS	NS	0.0110	U	0.00203	U	0.00110	U	0.00108	U	0.00371	U	0.00144	U
	4,4'-DDE	mg/kg	6	NS	NS	0.0176	U	0.00325	U	0.00176	U	0.00173	U	0.00594	U	0.00231	U
	4,4'-DDD	mg/kg	8	NS	NS	0.0176	U	0.00325	U	0.00176	U	0.00173	U	0.00594	U	0.00231	U
	4,4'-DDT	mg/kg	6	NS	NS	0.0397		0.00652		0.00330	U	0.00342	IP	0.0111	U	0.00434	U
	Endosulfan I	mg/kg	0.5	NS	NS	0.0176	U	0.00325	U	0.00176	U	0.00173	U	0.00594	U	0.00231	U
	Endosulfan II	mg/kg	0.5	NS	NS	0.0176	U	0.00325	U	0.00176	U	0.00173	U	0.00594	U	0.00231	U
	Endosulfan sulfate	mg/kg	0.5	NS	NS	0.00735	U	0.00136	U	0.000733	U	0.000721	U	0.00247	U	0.000964	U
	Methoxychlor	mg/kg	200	NS	NS	0.0331	U	0.00610	U	0.00330	U	0.00325	U	0.0111	U	0.00434	U
	Chlordane	mg/kg	0.7	NS	NS	0.147	U	0.0271	U	0.0147	U	0.0144	U	0.0495	U	0.0193	U
	Hexachlorobenzene	mg/kg	0.7	NS	NS	0.0176	U	0.00325	U	0.00176	U	0.00173	U	0.00594	U	0.00231	U
Herbicides																	
	MCPP	mg/kg	NS	NS	NS	3.7	U	7	U	3.8	U	3.7	U	4.5	U	4.7	U
	MCPA	mg/kg	100	NS	NS	3.7	U	7	U	3.8	U	3.7	U	4.5	U	4.7	U
	Dalapon	mg/kg	1,000	NS	NS	0.037	U	0.07	U	0.038	U	0.037	U	0.045	U	0.047	U
	Dicamba	mg/kg	500	NS	NS	0.037	U	0.07	U	0.038	U	0.037	U	0.045	U	0.047	U
	Dichloroprop	mg/kg	NS	NS	NS	0.037	U	0.07	U	0.038	U	0.037	U	0.045	U	0.047	U
	2,4-D	mg/kg	100	NS	NS	0.037	U	0.07	U	0.038	U	0.037	U	0.045	U	0.047	U
	2,4-DB	mg/kg	100	NS	NS	0.037	U	0.07	U	0.038	U	0.037	U	0.045	U	0.047	U
	2,4,5-T	mg/kg	100	NS	NS	0.037	U	0.07	U	0.038	U	0.037	U	0.045	U	0.047	U
	2,4,5-TP (Silvex)	mg/kg	100	NS	NS	0.037	U	0.07	U	0.038	U	0.037	U	0.045	U	0.047	U
TPH																	
	Total Petroleum Hydrocarbons	mg/kg	1,000	2,500	5,000	4,340		174		408		120		2,160		770	
Metals, total																	
	Antimony	mg/kg	20	NS	NS	2.19	U	4.18	U	2.24	U	2.13	U	2.59	U	2.82	U
	Arsenic	mg/kg	20	40	40	5.36		9.18		3.44		3.85		5.11		5.55	
	Barium	mg/kg	1,000	NS	NS	38.0		92.1		24.1		35.8		39.8		53.4	
	Beryllium	mg/kg	90	NS	NS	0.237		0.619		0.287		0.255		0.301		0.366	
	Cadmium	mg/kg	70	30	80	0.657		1.08		0.449	U	0.425	U	0.518	U	0.564	U
	Chromium	mg/kg	100	1,000	1,000	12.1		37.3		16.0		12.7		16.9		20.3	
	Cobalt	mg/kg	200	1,000	2,000	134		80.9		38.9		60.5		91.7		72.9	
	Mercury	mg/kg	20	10	10	0.187		0.152	U	0.093		0.191		0.445		0.207	
	Nickel	mg/kg	600	NS	NS	9.30		25.9		10.9		10.2		12.2		14.5	
	Selenium	mg/kg	400	NS	NS	2.19	U	4.18	U	2.24	U	2.13	U	2.59	U	2.82	U
	Silver	mg/kg	100	NS	NS	0.438	U	0.837	U	0.449	U	0.425	U	0.518	U	0.564	U
	Thallium	mg/kg	8	NS	NS	2.19	U	4.18	U	2.24	U	2.13	U	2.59	U	2.82	U
	Vanadium	mg/kg	400	NS	NS	22.9		50.1		29.8		16.6		24.6		27.6	
	Zinc	mg/kg	1,000	NS	NS	160		148		67.6		62.6		96.5		101	
Metals, TCLP																	
	Lead	mg/L	5**	NS	NS	0.500	U	NA		NA		NA		NA		NA	
General Chemistry																	
	Ignitability		NS	NS	NS	NI		NI		NI		NI		NI		NI	
	Specific Conductance	umhos/cm	NS	4,000	8,000	110		110		68		93		110		86	
	pH	su	NS	2 - 12.5	2 - 12.5	7.6		8.2		8.0		8.2		7.4		7.4	
	Reactive Cyanide	mg/kg	NS	< 250	< 250	10	U	10	U	10	U	10	U	10	U	10	U
	Reactive Sulfide	mg/kg	NS	< 500	< 500	10	U	10	U	10	U	10	U	10	U	10	U

Notes:

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

mg/L - milligrams per liter.

su - Standard unit.

umhos/cm - Micro-mhos per centimeter.

1 - The lower value for the two columns has been reported due to obvious interference.

NA - Sample not analyzed for the listed analyte.

N/A - Not applicable/available.

NI - Not ignitable.

NS - No MassDEP standards exist for this analyte.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

U - Analyte was not detected at specified quantitation limit.

Values in bold indicate the analyte was detected.

Values shown in bold and shaded type exceed one or more of the listed MassDEP standards/criteria.

VOCs - Volatile Organic Compounds.

** - Reuse and Disposal of Contaminated Soil at Massachusetts Landfills, MassDEP Policy # COMM-97-001, August 1997.

** - EPA SW-846 Chapter 7, Table 7-1, Maximum Concentration of Contaminants for Toxicity Characteristic.

SVOCs - Semivolatile Organic Compounds.

PCBs - Polychlorinated Biphenyls.

RC - Reportable concentration.

TPH - Total Petroleum Hydrocarbons.

(1) - Value for C9-C10 aromatic used.

(2) - Criteria applicable to xylene (total), the sum of the xylene isomers.

(3) - Value for Dichloropropane used.

(4) - Value for Dichloropropane used.

(5) - Value for Chlorobenzene used.

< - Sample name for Other/VOC analysis.

<> - Lab Sample ID for Other/VOC/TCLP analysis; otherwise Lab Sample ID applied to Other/VOC analysis.

Table 2 - Soil Characterization Analytical Results
MBTA Green Line Extension Project
132 Washington Street
Somerville, Massachusetts
Release Tracking Number 3-34742
March 2022 - August 2022

LOCATION										GLC-WASHPUMPGAS030222-DC-COMP		GLC-WASHPUMPGAS030222-DC-VOC(1)		
SAMPLING DATE										3/11/2022		3/11/2022		
LAB SAMPLE ID										22C1091-01		22C1091-02		
SAMPLE TYPE										SOIL		SOIL		
	CasNum	MA-BLNS	RCS-1-14	RCS-2-14	BUD-S3/G3	MA-LLAND	MA-ULAND	Saugus	TRC-SSSR-GLX	Units	Results	Qual	Results	Qual
General Chemistry														
Specific Conductance @ 25 C	SC					8000	4000	2000		umhos/cm	30		-	-
Solids, Total	TSOLIDS									%	87.0		87.0	
pH (H)	12408-02-5							5-9	2-12.5	SU	8.8		-	-
Cyanide, Reactive	GIS-250-012							250	250	mg/kg	3.9	U	-	-
Sulfide, Reactive	RSULF							500	500	mg/kg	19	U	-	-
Ignitability of Solids														
Ignitability	IGNIT							>140°	NI		Absent		-	-
MCP Chlorinated Herbicides														
2,4-D	94-75-7		100	1000				10		mg/kg	0.11	U	-	-
2,4-DB	94-82-6		100	1000				10		mg/kg	0.11	U	-	-
2,4,5-TP (Silvex)	93-72-1		100	1000				10		mg/kg	0.011	U	-	-
2,4,5-T	93-76-5		100	1000				10		mg/kg	0.011	U	-	-
Dalapon	75-99-0		1000	10000				100		mg/kg	0.29	U	-	-
Dicamba	1918-00-9		500	5000				50		mg/kg	0.011	U	-	-
Dichloroprop	120-36-5							0.08		mg/kg	0.11	U	-	-
MCPA	94-74-6		100	1000				10		mg/kg	11	U	-	-
MCPP	93-65-2							3.3		mg/kg	11	U	-	-
MCP Organochlorine Pesticides														
Aldrin	309-00-2		0.08	0.5	0.7			0.05		mg/kg	0.11	U	-	-
Alpha-BHC	319-84-6		50	500				5		mg/kg	0.11	U	-	-
Beta-BHC	319-85-7		10	100				1		mg/kg	0.11	U	-	-
Delta-BHC	319-86-8		10	100				1		mg/kg	0.11	U	-	-
Lindane	58-89-9		0.003	0.5	0.46			0.0003		mg/kg	0.046	U	-	-
Chlordane	57-74-9		0.7	30	27			0.07		mg/kg	0.46	U	-	-
4,4'-DDD	72-54-8		8	40	14			0.8		mg/kg	0.092	U	-	-
4,4'-DDE	72-55-9		6	30	14			0.6		mg/kg	0.092	U	-	-
4,4'-DDT	50-29-3		6	30	14			0.6		mg/kg	0.092	U	-	-
Dieldrin	60-57-1		0.08	0.5	1			0.05		mg/kg	0.092	U	-	-
Endosulfan I	959-98-8		0.5	1	1.2			0.05		mg/kg	0.11	U	-	-
Endosulfan II	33213-65-9		0.5	1	1.2			0.05		mg/kg	0.18	U	-	-
Endosulfan sulfate	1031-07-8							0.008		mg/kg	0.18	U	-	-
Endrin	72-20-8		10	20	7			1		mg/kg	0.18	U	-	-
Endrin ketone	53494-70-5							0.008		mg/kg	0.18	U	-	-
Heptachlor	76-44-8		0.3	2	4.2			0.03		mg/kg	0.11	U	-	-
Heptachlor epoxide	1024-57-3		0.1	0.9	0.35			0.01		mg/kg	0.11	U	-	-
Hexachlorobenzene	118-74-1		0.7	0.8	15			0.07	0.8	mg/kg	0.14	U	-	-
Methoxychlor	72-43-5		200	400	140			20		mg/kg	1.1	U	-	-
MCP Polychlorinated Biphenyls														
Aroclor 1016	12674-11-2		1	4	1.6				4	mg/kg	0.092	U	-	-
Aroclor 1221	11104-28-2		1	4	1.6				4	mg/kg	0.092	U	-	-
Aroclor 1232	11141-16-5		1	4	1.6				4	mg/kg	0.092	U	-	-
Aroclor 1242	53469-21-9		1	4	1.6				4	mg/kg	0.092	U	-	-
Aroclor 1248	12672-29-6		1	4	1.6				4	mg/kg	0.092	U	-	-
Aroclor 1254	11097-69-1		1	4	1.6				4	mg/kg	0.092	U	-	-
Aroclor 1260	11096-82-5		1	4	1.6				4	mg/kg	0.092	U	-	-
Aroclor 1262	37324-23-5		1	4	1.6					mg/kg	0.092	U	-	-
Aroclor 1268	11100-14-4		1	4	1.6					mg/kg	0.092	U	-	-
PCBs, Total	1336-36-3		1	4	1.6	2	2	0.1	4	mg/kg	0.092	U	-	-
MCP Semivolatile Organics														
Biphenyl	92-52-4		0.05	6				0.005			0.77	U	-	-
Acenaphthene	83-32-9	0.5	4	3000	5000			4	69	mg/kg	0.099	J	-	-
Acenaphthylene	208-96-8	0.5	1	10	14			1	10	mg/kg	0.16	J	-	-
Acetophenone	98-86-2		1000	10000				100	2500	mg/kg	0.39	U	-	-
Aniline	62-53-3		1000	10000				100	2500	mg/kg	0.39	U	-	-
Anthracene	120-12-7	1	1000	3000	5000			1000	2500	mg/kg	0.43		-	-
Benzo(a)anthracene	56-55-3	2	7	40	160			7	40	mg/kg	1.2		-	-
Benzo(a)pyrene	50-32-8	2	2	7	16			2	7	mg/kg	1.3		-	-
Benzo(b)fluoranthene	205-99-2	2	7	40	160			7	40	mg/kg	1.5		-	-
Benzo(ghi)perylene	191-24-2	1	1000	3000	5000			1000	2500	mg/kg	0.64		-	-
Benzo(k)fluoranthene	207-08-9	1	70	400	1600			70	400	mg/kg	0.61		-	-
Bis(2-chloroethoxy)methane	111-91-1		500	5000				50	2500	mg/kg	0.39	U	-	-
Bis(2-chloroethyl)ether	111-44-4		0.7	0.7	4.7			0.1	0.7	mg/kg	0.39	U	-	-
Bis(2-chloroisopropyl)ether	108-60-1		0.7	0.7	74			0.1	0.7	mg/kg	0.39	U	-	-
Bis(2-ethylhexyl)phthalate	117-81-7		90	600	230			60	600	mg/kg	0.39	U	-	-
4-Bromophenyl phenyl ether	101-55-3		100	1000				10	500	mg/kg	0.39	U	-	-
Butyl benzyl phthalate	85-68-7		100	1000				10	500	mg/kg	0.39	U	-	-
4-Chloroaniline	106-47-8		1	3	3.3			0.1	3	mg/kg	0.76	U	-	-
2-Chloronaphthalene	91-58-7		1000	10000				100	2500	mg/kg	0.39	U	-	-
2-Chlorophenol	95-57-8		0.7	100	310			0.1	7	mg/kg	0.39	U	-	-
Chrysene	218-01-9	2	70	400	3400			70	400	mg/kg	1.2		-	-
Dibenzo(a,h)anthracene	53-70-3	0.5	0.7	4	16			0.7	4	mg/kg	0.19	J	-	-
Dibenzofuran	132-64-9		100	1000				100	500	mg/kg	0.15	J	-	-
Di-n-butylphthalate	84-74-2		50	500				5	375	mg/kg	0.39	U	-	-
1,2-Dichlorobenzene	95-50-1		9	100	330			0.9	90	mg/kg	0.39	U	-	-
1,3-Dichlorobenzene	541-73-1		3	200	500			0.3	30	mg/kg	0.39	U	-	-
1,4-Dichlorobenzene	106-46-7		0.7	1	1200			0.1	1	mg/kg	0.39	U	-	-
3,3'-Dichlorobenzidine	91-94-1		3	20	20			0.3	20	mg/kg	0.2	U	-	-
2,4-Dichlorophenol	120-83-2		0.7	40	40			0.1	7	mg/kg	0.39	U	-	-
Diethyl phthalate	84-66-2		10	200	290			1	75	mg/kg	0.39	U	-	-
2,4-Dimethylphenol	105-67-9		0.7	100	1300			0.1	7	mg/kg	0.39	U	-	-
Dimethyl phthalate	131-11-3		0.7	50	550			0.1	7	mg/kg	0.39	U	-	-
2,4-Dinitrophenol	51-28-5		3	50	45			0.3	30	mg/kg	0.76	U	-	-
2,4-Dinitrotoluene	121-14-2		0.7	10	36			0.1	7	mg/kg	0.39	U	-	-
2,6-Dinitrotoluene	606-20-2		100	1000				10	500	mg/kg	0.39	U	-	-
Di-n-octylphthalate	117-84-0		1000	10000				100	2500	mg/kg	0.39	U	-	-
Azobenzene	103-33-3		50	500				5	375	mg/kg	0.39	U	-	-
Fluoranthene	206-44-0	4	1000	3000	5000			1000	2500	mg/kg	2.2		-	-
Fluorene	86-73-7	1	1000	3000	5000			1000	2500	mg/kg	0.18	J	-	-

Table 2 - Soil Characterization Analytical Results
MBTA Green Line Extension Project
132 Washington Street
Somerville, Massachusetts
Release Tracking Number 3-34742
March 2022 - August 2022

LOCATION										GLC-WASHPUMPGAS030222-DC-COMP		GLC-WASHPUMPGAS030222-DC-VOC(1)		
SAMPLING DATE										3/11/2022		3/11/2022		
LAB SAMPLE ID										22C1091-01		22C1091-02		
SAMPLE TYPE										SOIL		SOIL		
	CasNum	MA-BLNS	RCS-1-14	RCS-2-14	BUD-S3/G3	MA-LLAND	MA-ULAND	Saugus	TRC-SSSR-GLX	Units	Results	Qual	Results	Qual
Hexachlorobenzene	118-74-1		0.7	0.8	15			0.1	0.8	mg/kg	0.39	U	-	-
Hexachlorobutadiene	87-68-3		30	100	54			3	100	mg/kg	0.39	U	-	-
Hexachloroethane	67-72-1		0.7	3	74			0.1	3	mg/kg	0.39	U	-	-
Indeno(1,2,3-cd)pyrene	193-39-5	1	7	40	160			7	40	mg/kg	0.70		-	-
Isophorone	78-59-1		100	1000				10	500	mg/kg	0.39	U	-	-
2-Methylnaphthalene	91-57-6	0.5	0.7	80	240			0.7	25	mg/kg	0.18	J	-	-
2-Methylphenol	95-48-7		500	5000				50	2500	mg/kg	0.39	U	-	-
3-Methylphenol/4-Methylphenol	108-39-4/106-44-5		500	5000				50	2500	mg/kg	0.39	U	-	-
Naphthalene	91-20-3	0.5	4	20	3000			4	20	mg/kg	0.32		-	-
Nitrobenzene	98-95-3		500	5000				50	2500	mg/kg	0.39	U	-	-
2-Nitrophenol	88-75-5		100	1000				10	500	mg/kg	0.39	U	-	-
4-Nitrophenol	100-02-7		100	1000				10	500	mg/kg	0.76	U	-	-
Pentachlorophenol	87-86-5		3	10	13			0.3	10	mg/kg	0.39	U	-	-
Phenanthrene	85-01-8	3	10	1000	3000			10	532.5	mg/kg	1.2		-	-
Phenol	108-95-2		1	20	16			0.1	10	mg/kg	0.39	U	-	-
Pyrene	129-00-0	4	1000	3000	5000			1000	2500	mg/kg	2.3		-	-
Pyridine	110-86-1		500	5000				50		mg/kg	0.39	U	-	-
1,2,4-Trichlorobenzene	120-82-1		2	6	450			0.2	6	mg/kg	0.39	U	-	-
2,4,5-Trichlorophenol	95-95-4		4	600	580			0.4	40	mg/kg	0.39	U	-	-
2,4,6-Trichlorophenol	88-06-2		0.7	20	19			0.1	7	mg/kg	0.39	U	-	-
Total SVOCs						100	100			mg/kg	14.559	J	-	-
MCP Total Metals														
Antimony, Total	7440-36-0	1	20	30	16			20	30	mg/kg	1.9	U	-	-
Arsenic, Total	7440-38-2	20	20	20	11	40	40	20	20	mg/kg	4.1		-	-
Barium, Total	7440-39-3	50	1000	3000	2100			1000	2500	mg/kg	38		-	-
Beryllium, Total	7440-41-7	0.4	90	200	10			90	200	mg/kg	0.38		-	-
Cadmium, Total	7440-43-9	2	70	100	16	80	30	70	100	mg/kg	0.38	U	-	-
Chromium, Total	7440-47-3	30	100	200	570	1000	1000	100	200	mg/kg	23		-	-
Lead, Total	7439-92-1	100	200	600	110	2000	1000	200	600	mg/kg	32		-	-
Mercury, Total	7439-97-6	0.3	20	30	16	10	10	20	30	mg/kg	0.17		-	-
Nickel, Total	7440-02-0	20	600	1000	350			600	1000	mg/kg	19		-	-
Selenium, Total	7782-49-2	0.5	400	700	390			400	700	mg/kg	3.8	U	-	-
Silver, Total	7440-22-4	0.6	100	200	110			100	200	mg/kg	0.38	U	-	-
Thallium, Total	7440-28-0	0.6	8	60	37			8	60	mg/kg	1.9	U	-	-
Vanadium, Total	7440-62-2	30	400	700	530			400	700	mg/kg	42		-	-
Zinc, Total	7440-66-6	100	1000	3000	5000			1000	2500	mg/kg	65		-	-
MCP Volatile Organics by EPA 5035														
Acetone	67-64-1		6	50	350			0.6	50	mg/kg	-	-	0.074	U
Tertiary-Amyl Methyl Ether	994-05-8							0.01		mg/kg	-	-	0.00074	U
Benzene	71-43-2		2	200	540			0.2	20	mg/kg	-	-	0.0015	U
Bromobenzene	108-86-1		100	1000				10	500	mg/kg	-	-	0.0015	U
Bromochloromethane	74-97-5							0.01		mg/kg	-	-	0.0015	U
Bromodichloromethane	75-27-4		0.1	0.1	460			0.1	0.1	mg/kg	-	-	0.0015	U
Bromoform	75-25-2		0.1	1	800			0.1	1	mg/kg	-	-	0.0015	U
Bromomethane	74-83-9		0.5	0.5	32			0.1	0.5	mg/kg	-	-	0.0074	U
Methyl ethyl ketone	78-93-3		4	50	350			0.4	40	mg/kg	-	-	0.029	U
n-Butylbenzene	104-51-8							0.01	500	mg/kg	-	-	0.0015	U
sec-Butylbenzene	135-98-8							0.01	500	mg/kg	-	-	0.0015	U
tert-Butylbenzene	98-06-6		100	1000				10	500	mg/kg	-	-	0.0015	U
Ethyl-Tert-Butyl-Ether	637-92-3							0.01		mg/kg	-	-	0.00074	U
Carbon disulfide	75-15-0		100	1000				10	500	mg/kg	-	-	0.0074	U
Carbon tetrachloride	56-23-5		5	5	220			0.5	5	mg/kg	-	-	0.0015	U
Chlorobenzene	108-90-7		1	3	110			0.1	3	mg/kg	-	-	0.0015	U
Dibromochloromethane	124-48-1		0.005	0.03	340			0.0005	0.03	mg/kg	-	-	0.00074	U
Chloroethane	75-00-3		100	1000				10	500	mg/kg	-	-	0.015	U
Chloroform	67-66-3		0.2	0.2	410			0.1	0.2	mg/kg	-	-	0.0029	U
Chloromethane	74-87-3		100	1000				10	500	mg/kg	-	-	0.0074	U
o-Chlorotoluene	95-49-8		100	1000				10	500	mg/kg	-	-	0.0015	U
p-Chlorotoluene	106-43-4							0.01	500	mg/kg	-	-	0.0015	U
1,2-Dibromo-3-chloropropane	96-12-8		10	100				1	75	mg/kg	-	-	0.0015	U
1,2-Dibromoethane	106-93-4		0.1	0.1	0.33			0.1	0.1	mg/kg	-	-	0.00074	U
Dibromomethane	74-95-3		500	5000				50	2500	mg/kg	-	-	0.0015	U
1,2-Dichlorobenzene	95-50-1		9	100	330			0.9	90	mg/kg	-	-	0.0015	U
1,3-Dichlorobenzene	541-73-1		3	200	500			0.3	30	mg/kg	-	-	0.0015	U
1,4-Dichlorobenzene	106-46-7		0.7	1	1200			0.1	1	mg/kg	-	-	0.0015	U
Dichlorodifluoromethane	75-71-8		1000	10000				100	2500	mg/kg	-	-	0.015	U
1,1-Dichloroethane	75-34-3		0.4	9	1300			0.1	4	mg/kg	-	-	0.0015	U
1,2-Dichloroethane	107-06-2		0.1	0.1	310			0.1	0.1	mg/kg	-	-	0.0015	U
1,1-Dichloroethene	75-35-4		3	40	1600			0.3	30	mg/kg	-	-	0.0029	U
cis-1,2-Dichloroethene	156-59-2		0.1	0.1	500			0.1	0.1	mg/kg	-	-	0.0015	U
trans-1,2-Dichloroethene	156-60-5		1	1	2500			0.1	1	mg/kg	-	-	0.0015	U
1,2-Dichloropropane	78-87-5		0.1	0.1	280			0.1	0.1	mg/kg	-	-	0.0015	U
1,3-Dichloropropane	142-28-9		500	5000				50	2500	mg/kg	-	-	0.00074	U
2,2-Dichloropropane	594-20-7							0.01	0.1	mg/kg	-	-	0.0015	U
1,1-Dichloropropene	563-58-6							0.01	0.1	mg/kg	-	-	0.0015	U
cis-1,3-Dichloropropene	10061-01-5		0.01	0.4	140			0.001	0.1	mg/kg	-	-	0.00074	U
trans-1,3-Dichloropropene	10061-02-6		0.01	0.4	140			0.001	0.1	mg/kg	-	-	0.00074	U
Diethyl ether	60-29-7		100	1000				10	500	mg/kg	-	-	0.015	U
Diisopropyl Ether	108-20-3		100	1000				10	500	mg/kg	-	-	0.00074	U
1,4-Dioxane	123-91-1		0.2	6	450			0.1	2	mg/kg	-	-	0.074	U
Ethylbenzene	100-41-4		40	1000	230			4	300	mg/kg	-	-	0.0015	U
Hexachlorobutadiene	87-68-3		30	100	54			3	100	mg/kg	-	-	0.0015	U
2-Hexanone	591-78-6		100	1000				10	500	mg/kg	-	-	0.015	U
Isopropylbenzene	98-82-8		1000	10000				100	2500	mg/kg	-	-	0.0015	U
p-Isopropyltoluene	99-87-6		100	1000				10	500	mg/kg	-	-	0.0015	U
Methyl tert butyl ether	1634-04-4		0.1	100	500			0.1	1.9	mg/kg	-	-	0.0029	U
Methylene chloride	75-09-2		0.1	4	900			0.1	1	mg/kg	-	-	0.015	U
Methyl isobutyl ketone	108-10-1		0.4	50	400			0.1	4	mg/kg	-	-	0.015	U
Naphthalene	91-20-3	0.5	4	20	3000			4	20	mg/kg	-	-	0.0029	U

Table 2 - Soil Characterization Analytical Results
MBTA Green Line Extension Project
132 Washington Street
Somerville, Massachusetts
Release Tracking Number 3-34742
March 2022 - August 2022

LOCATION										GLC-WASHPUMPGAS030222-DC-COMP		GLC-WASHPUMPGAS030222-DC-VOC(1)			
SAMPLING DATE										3/11/2022		3/11/2022			
LAB SAMPLE ID										22C1091-01		22C1091-02			
SAMPLE TYPE										SOIL		SOIL			
		CasNum	MA-BLNS	RCS-1-14	RCS-2-14	BUD-S3/G3	MA-LLAND	MA-ULAND	Saugus	TRC-SSSR-GLX	Units	Results	Qual	Results	Qual
	n-Propylbenzene	103-65-1		100	1000				10	500	mg/kg	-	-	0.0015	U
	Styrene	100-42-5		3	4	630			0.3	4	mg/kg	-	-	0.0015	U
	1,1,1,2-Tetrachloroethane	630-20-6		0.1	0.1	150			0.1	0.1	mg/kg	-	-	0.0015	U
	1,1,2,2-Tetrachloroethane	79-34-5		0.005	0.02	19			0.0005	0.02	mg/kg	-	-	0.00074	U
	Tetrachloroethene	127-18-4		1	10	370			0.1	10	mg/kg	-	-	0.0085	
	Tetrahydrofuran	109-99-9		500	5000				50	2500	mg/kg	-	-	0.0074	U
	Toluene	108-88-3		30	1000	520			3	225	mg/kg	-	-	0.0015	U
	1,2,3-Trichlorobenzene	87-61-6							0.01		mg/kg	-	-	0.0015	U
	1,2,4-Trichlorobenzene	120-82-1		2	6	450			0.2	6	mg/kg	-	-	0.0015	U
	1,1,1-Trichloroethane	71-55-6		30	600	1400			3	225	mg/kg	-	-	0.0015	U
	1,1,2-Trichloroethane	79-00-5		0.1	2	91			0.1	1	mg/kg	-	-	0.0015	U
	Trichloroethene	79-01-6		0.3	0.3	810			0.1	0.3	mg/kg	-	-	0.0015	U
	Trichlorofluoromethane	75-69-4		1000	10000				100	2500	mg/kg	-	-	0.0074	U
	1,2,3-Trichloropropane	96-18-4		100	1000				10	500	mg/kg	-	-	0.0015	U
	1,2,4-Trimethylbenzene	95-63-6		1000	10000				100	2500	mg/kg	-	-	0.0015	U
	1,3,5-Trimethylbenzene	108-67-8		10	100				1	75	mg/kg	-	-	0.0015	U
	Vinyl chloride	75-01-4		0.7	0.7	12			0.1	0.7	mg/kg	-	-	0.0074	U
	p/m-Xylene	179601-23-1		100	100	270			10	100	mg/kg	-	-	0.0029	U
	o-Xylene	95-47-6		100	100	270			10	100	mg/kg	-	-	0.0015	U
	Total VOCs						10	4			mg/kg	-	-	0.0085	
Petroleum Hydrocarbon Quantitation															
	TPH (C9-C36)	TPHC9-C36		1000	3000	500	5000	2500	500	2500	mg/kg	760		-	-

Yellow shading indicates detected result is equal to or above one or more of the listed criteria, except for MA Background Level Natural soil.

Gray shading indicates nondetect detection limit is above one or more of the listed criteria, except for MA Background Level Natural soil.

RCS-1-14: MCP 2014 RCS-1 Reportable Concentrations Criteria effective April 25, 2014.

RCS-2-14: MCP 2014 RCS-2 Reportable Concentrations Criteria effective April 25, 2014.

BUD-S3/G3: MassDEP Proposed S3, GW-3 Beneficial Use Determination (BUD) Values Criteria per Draft Interim Guidance Document effective March 18, 2004.

MA-BLNS: Background Level Natural soil current as of 10/24/07

MA-LLAND: Lined Landfill Limits current as of August, 1997

MA-ULAND: UnLined Landfill Limits current as of August, 1997

TRC-SSSR-GLX: Site Specific Soil Reuse Criteria: Vehicle Maintenance Facility for GLX Project Criteria per client-provided Table X February 21, 2018.

Saugus: Acceptance Criteria for Aggregate Industries - Saugus Quarry, Table 1.

U - Not detected at the reported detection limit for the sample.

J - Estimated value.

Table 2 - 2022 Analytical Results
MBTA Green Line Extension Project
Somerville, Massachusetts
July 27, 2022

LOCATION										GLC-WASHPUMPGRADING-062322-DC-VOC(7)	GLC-WASHPUMPGRADING-062322-DC-COMP
SAMPLING DATE										7/27/2022	7/27/2022
LAB SAMPLE ID										1.2240165-01	1.2240165-02
SAMPLE TYPE										SOIL	SOIL
REUSE/DISPOSAL FACILITY										MA Unlined Landfill	MA Unlined Landfill
Units										Results	Qual
Results										Results	Qual
General Chemistry	CasNum	MA-BLNS	RCS-1-14	RCS-2-14	BUD-S3/G3	MA-LLAND	MA-ULAND	Saugus	Dudley <RCS-2	TRC-SSSR-GLX	
Specific Conductance @ 25 C	NONE					8000	4000	2000	2000	umhos/cm	-
Solids, Total	NONE									%	98.1
pH (H)	12408-02-5							5-9	5-9	SU	-
Cyanide, Reactive	57-12-5							250	250	mg/kg	-
Sulfide, Reactive	NONE							500	500	mg/kg	-
Ignitability of Solids											-
Ignitability	NONE							>140*	Not Ignitable (NI)	NI	-
MCP Chlorinated Herbicides											-
MCP	93-65-2							3.3		mg/kg	-
MCPA	94-74-6							10	100	mg/kg	-
Dalapon	75-99-0		1000	10000				100	1000	mg/kg	-
Dicamba	1918-00-9		500	5000				50	500	mg/kg	-
Dichloroprop	120-36-5							0.08		mg/kg	-
2,4-D	94-75-7		100	1000				10	100	mg/kg	-
2,4-DB	94-82-6		100	1000				10	100	mg/kg	-
2,4,5-T	93-76-5		100	1000				10	100	mg/kg	-
2,4,5-TP (Silvex)	93-72-1		100	1000				10	100	mg/kg	-
MCP Organochlorine Pesticides											-
Delta-BHC	319-86-8		10	100				1	10	mg/kg	-
Lindane	58-89-9		0.003	0.5	0.46			0.0003	0.05	mg/kg	-
Alpha-BHC	319-84-6		50	500				5	50	mg/kg	-
Beta-BHC	319-85-7		10	100				1	10	mg/kg	-
Heptachlor	76-44-8		0.3	2	4.2			0.05	0.2	mg/kg	-
Aldrin	309-00-2		0.08	0.5	0.7			0.05	0.05	mg/kg	-
Heptachlor epoxide	1024-57-3		0.1	0.9	0.35			0.05	0.09	mg/kg	-
Endrin	72-20-8		10	20	7			1	2	mg/kg	-
Endrin ketone	53494-70-5							0.008		mg/kg	-
Dieldrin	60-57-1		0.08	0.5	1			0.05	0.05	mg/kg	-
4,4'-DDE	72-55-9		6	30	14			0.6	3	mg/kg	-
4,4'-DDD	72-54-8		8	40	14			0.8	4	mg/kg	-
4,4'-DDT	50-29-3		6	30	14			0.6	3	mg/kg	-
Endosulfan I	959-98-8		0.5	1	1.2			0.05	0.1	mg/kg	-
Endosulfan II	33213-65-9		0.5	1	1.2			0.05	0.1	mg/kg	-
Endosulfan sulfate	1031-07-8							0.008		mg/kg	-
Methoxychlor	72-43-5		200	400	140			20	40	mg/kg	-
Chlordane	57-74-9		0.7	30	27			0.07	3	mg/kg	-
Hexachlorobenzene	118-74-1		0.7	0.8	15			0.07	0.08	mg/kg	-
MCP Polychlorinated Biphenyls											-
Aroclor 1016	12674-11-2		1	4	1.6				4	mg/kg	-
Aroclor 1221	11104-28-2		1	4	1.6				4	mg/kg	-
Aroclor 1232	11141-16-5		1	4	1.6				4	mg/kg	-
Aroclor 1242	53469-21-9		1	4	1.6				4	mg/kg	-
Aroclor 1248	12672-29-6		1	4	1.6				4	mg/kg	-
Aroclor 1254	11097-69-1		1	4	1.6				4	mg/kg	-
Aroclor 1260	11096-82-5		1	4	1.6				4	mg/kg	-
Aroclor 1262	37324-23-5		1	4	1.6				4	mg/kg	-
Aroclor 1268	11100-14-4		1	4	1.6				4	mg/kg	-
PCBs, Total	1336-36-3		1	4	1.6	2	2	0.1	0.1	4	mg/kg
MCP Semivolatile Organics											-
Acenaphthene	83-32-9	0.5	4	3000	5000			4	5	69	mg/kg
1,2,4-Trichlorobenzene	120-82-1		2	6	450			0.2	0.6	6	mg/kg
Hexachlorobenzene	118-74-1		0.7	0.8	15			0.1	0.08	0.8	mg/kg
Bis(2-chloroethyl)ether	111-44-4		0.7	0.7	4.7			0.1	0.07	0.7	mg/kg
2-Chloronaphthalene	91-58-7		1000	10000				100	100	2500	mg/kg
1,2-Dichlorobenzene	95-50-1		9	100	330			0.9	10	90	mg/kg
1,3-Dichlorobenzene	541-73-1		3	200	500			0.3	20	30	mg/kg
1,4-Dichlorobenzene	106-46-7		0.7	1	1200			0.1	0.1	1	mg/kg
3,3'-Dichlorobenzidine	91-94-1		3	20	20			0.3	2	20	mg/kg
2,4-Dinitrotoluene	121-14-2		0.7	10	36			0.1	1	7	mg/kg
2,6-Dinitrotoluene	606-20-2		100	1000				10	100	500	mg/kg
Azobenzene	103-33-3		50	500				5	50	375	mg/kg
Fluoranthene	206-44-0	4	1000	3000	5000			1000	40	2500	mg/kg
4-Bromophenyl phenyl ether	101-55-3		100	1000				10	100	500	mg/kg
Bis(2-chloroisopropyl)ether	108-60-1		0.7	0.7	74			0.1	0.07	0.7	mg/kg
Bis(2-chloroethoxy)methane	111-91-1		500	5000				50	100	2500	mg/kg
Hexachlorobutadiene	87-68-3		30	100	54			3	10	100	mg/kg
Hexachloroethane	67-72-1		0.7	3	74			0.1	0.3	3	mg/kg
Isophorone	78-59-1		100	1000				10	100	500	mg/kg
Naphthalene	91-20-3	0.5	4	20	3000			4	5	20	mg/kg
Nitrobenzene	98-95-3		500	5000				50	100	2500	mg/kg
Bis(2-ethylhexyl)phthalate	117-81-7		90	600	230			60	60	600	mg/kg
Butyl benzyl phthalate	85-68-7		100	1000				10	100	500	mg/kg
Di-n-butylphthalate	84-74-2		50	500				5	50	375	mg/kg
Di-n-octylphthalate	117-84-0		1000	10000				100	100	2500	mg/kg

Table 2 - 2022 Analytical Results
MBTA Green Line Extension Project
Somerville, Massachusetts
July 27, 2022

LOCATION										GLC-WASHPUMPGRADING-062322-DC-VOC(7)	GLC-WASHPUMPGRADING-062322-DC-COMP
SAMPLING DATE										7/27/2022	7/27/2022
LAB SAMPLE ID										1.2240165-01	1.2240165-02
SAMPLE TYPE										SOIL	SOIL
REUSE/DISPOSAL FACILITY										MA Unlined Landfill	
										Results	Qual
										Results	Qual
CasNum	MA-BLNS	RCS-1-14	RCS-2-14	BUD-S3/G3	MA-LLAND	MA-ULAND	Saugus	Dudley <RCS-2	TRC-SSSR-GLX	Units	
Diethyl phthalate	84-68-2	10	20	290			1	20	75	mg/kg	0.17
Dimethyl phthalate	131-11-3	0.7	50	550			0.1	5	7	mg/kg	0.071
Benzo(a)anthracene	56-55-3	2	7	40	160		7	20	40	mg/kg	3.7
Benzo(a)pyrene	50-32-8	2	2	7	16		2	7	7	mg/kg	4.6
Benzo(b)fluoranthene	205-99-2	2	7	40	160		7	20	40	mg/kg	4.8
Benzo(k)fluoranthene	207-08-9	1	70	400	1600		70	10	400	mg/kg	1.6
Chrysene	218-01-9	2	70	400	3400		70	20	400	mg/kg	3.7
Acenaphthylene	208-96-8	0.5	1	10	14		1	5	10	mg/kg	1.4
Anthracene	120-12-7	1	1000	3000	5000		1000	10	2500	mg/kg	2.2
Benzo(ghi)perylene	191-24-2	1	1000	3000	5000		1000	10	2500	mg/kg	2.7
Fluorene	86-73-7	1	1000	3000	5000		1000	10	2500	mg/kg	0.76
Phenanthrene	85-01-8	3	10	1000	3000		10	30	532.5	mg/kg	4.4
Dibenzo(a,h)anthracene	53-70-3	0.5	0.7	4	16		0.7	4	4	mg/kg	0.6
Indeno(1,2,3-cd)pyrene	193-39-5	1	7	40	160		7	10	40	mg/kg	3.1
Pyrene	129-00-0	4	1000	3000	5000		1000	40	2500	mg/kg	5.9
Aniline	62-53-3		1000	10000			100	100	2500	mg/kg	0.2
4-Chloroaniline	106-47-8		1	3	3.3		0.1	0.3	3	mg/kg	0.17
Dibenzofuran	132-64-9		100	1000			100	100	500	mg/kg	0.47
2-Methylnaphthalene	91-57-6	0.5	0.7	80	240		0.7	5	25	mg/kg	0.78
Acetophenone	98-86-2		1000	10000			100	100	2500	mg/kg	0.17
2,4,6-Trichlorophenol	88-06-2		0.7	20	19		0.1	2	7	mg/kg	0.071
2-Chlorophenol	95-57-8		0.7	100	310		0.1	100	7	mg/kg	0.071
2,4-Dichlorophenol	120-83-2		0.7	40	40		0.1	4	7	mg/kg	0.071
2,4-Dimethylphenol	105-67-9		0.7	100	1300		0.1	10	7	mg/kg	0.071
2-Nitrophenol	88-75-5		100	1000			10	100	500	mg/kg	0.36
4-Nitrophenol	100-02-7		100	1000			10	100	500	mg/kg	0.24
2,4-Dinitrophenol	51-28-5		3	50	45		0.3	5	30	mg/kg	0.81
Pentachlorophenol	87-86-5		3	10	13		0.3	1	10	mg/kg	0.34
Phenol	108-95-2		1	20	16		0.1	2	10	mg/kg	0.17
2-Methylphenol	95-48-7		500	5000			50	100	2500	mg/kg	0.17
3-Methylphenol/4-Methylphenol	108-39-4/106-44-5		500	5000			50	100	2500	mg/kg	0.24
2,4,5-Trichlorophenol	95-95-4		4	600	580		0.4	60	40	mg/kg	0.17
Pyridine	110-86-1		500	5000			50	100		mg/kg	0.18
Biphenyl	92-52-4		0.05	6			0.005	0.6		mg/kg	0.14
Total SVOCs					100	100				mg/kg	48.7
MCP Total Metals											
Antimony, Total	7440-36-0	1	20	30	16		20	10	30	mg/kg	2.04
Arsenic, Total	7440-38-2	20	20	20	11	40	40	20	20	mg/kg	3.46
Barium, Total	7440-39-3	50	1000	3000	2100		1000	375	2500	mg/kg	22.9
Beryllium, Total	7440-41-7	0.4	90	200	10		90	4	200	mg/kg	0.204
Cadmium, Total	7440-43-9	2	70	100	16	80	30	70	100	mg/kg	0.409
Chromium, Total	7440-47-3	30	100	200	570	1000	1000	100	200	mg/kg	9.94
Lead, Total	7439-92-1	100	200	600	110	2000	1000	200	500	mg/kg	43.2
Mercury, Total	7439-97-6	0.3	20	30	16	10	10	20	3	mg/kg	0.139
Nickel, Total	7440-02-0	20	600	1000	350		600	150	1000	mg/kg	8
Selenium, Total	7782-49-2	0.5	400	700	390		400	5	700	mg/kg	2.04
Silver, Total	7440-22-4	0.6	100	200	110		100	6	200	mg/kg	0.409
Thallium, Total	7440-28-0	0.6	8	60	37		8	6	60	mg/kg	2.04
Vanadium, Total	7440-62-2	30	400	700	530		400	225	700	mg/kg	18.9
Zinc, Total	7440-66-6	100	1000	3000	5000		1000	500	2500	mg/kg	53.4
MCP Volatile Organics by EPA 5035											
Methylene chloride	75-09-2		0.1	4	900		0.1	0.01	1	mg/kg	0.0052
1,1-Dichloroethane	75-34-3		0.4	9	1300		0.1	0.04	4	mg/kg	0.001
Chloroform	67-66-3		0.2	0.2	410		0.1	0.02	0.2	mg/kg	0.0016
Carbon tetrachloride	56-23-5		5	5	220		0.5	0.5	5	mg/kg	0.001
1,2-Dichloropropane	78-87-5		0.1	0.1	280		0.1	0.01	0.1	mg/kg	0.001
Dibromochloromethane	124-48-1		0.005	0.03	340		0.0005	0.0005	0.03	mg/kg	0.001
1,1,2-Trichloroethane	79-00-5		0.1	2	91		0.1	0.01	1	mg/kg	0.001
Tetrachloroethane	127-18-4		1	10	370		0.1	0.1	10	mg/kg	0.00058
Chlorobenzene	108-90-7		1	3	110		0.1	0.1	3	mg/kg	0.00052
Trichlorofluoromethane	75-69-4		1000	10000			100	100	2500	mg/kg	0.0042
1,2-Dichloroethane	107-06-2		0.1	0.1	310		0.1	0.01	0.1	mg/kg	0.001
1,1,1-Trichloroethane	71-55-6		30	800	1400		3	3	225	mg/kg	0.0052
Bromodichloromethane	75-27-4		0.1	0.1	460		0.1	0.01	0.1	mg/kg	0.00052
trans-1,3-Dichloropropene	10061-02-6		0.01	0.4	140		0.001	0.001	0.1	mg/kg	0.001
cis-1,3-Dichloropropene	10061-01-5		0.01	0.4	140		0.001	0.001	0.1	mg/kg	0.00052
1,3-Dichloropropene, Total	542-75-6		0.01	0.4	140		0.001	0.001	0.1	mg/kg	0.00052
1,1-Dichloropropene	563-58-6						0.01	0.001	0.1	mg/kg	0.00052
Bromoform	75-25-2		0.1	1	800		0.1	0.01	1	mg/kg	0.0042
1,1,2,2-Tetrachloroethane	79-34-5		0.005	0.02	19		0.0005	0.0005	0.02	mg/kg	0.00052
Benzene	71-43-2		2	200	540		0.2	0.2	20	mg/kg	0.00052
Toluene	108-88-3		30	1000	520		3	3	225	mg/kg	0.001
Ethylbenzene	100-41-4		40	1000	230		4	4	300	mg/kg	0.001
Chloromethane	74-87-3		100	1000			10	10	500	mg/kg	0.0042
Bromomethane	74-83-9		0.5	0.5	32		0.1	0.05	0.5	mg/kg	0.0021
Vinyl chloride	75-01-4		0.7	0.7	12		0.1	0.07	0.7	mg/kg	0.001
Chloroethane	75-00-3		100	1000			10	10	500	mg/kg	0.0021
1,1-Dichloroethene	75-35-4		3	40	1600		0.3	0.3	30	mg/kg	0.001

Table 2 - 2022 Analytical Results
MBTA Green Line Extension Project
Somerville, Massachusetts
July 27, 2022

LOCATION										GLC-WASHPUMPGRADING-062322-DC-VOC(7)		GLC-WASHPUMPGRADING-062322-DC-COMP			
SAMPLING DATE										7/27/2022		7/27/2022			
LAB SAMPLE ID										1.2240165-01		1.2240165-02			
SAMPLE TYPE										SOIL		SOIL			
REUSE/DISPOSAL FACILITY										MA Unlined Landfill		MA Unlined Landfill			
	CasNum	MA-BLNS	RCS-1-14	RCS-2-14	BUD-S3/G3	MA-LLAND	MA-ULAND	Saugus	Dudley <RCS-2	TRC-SSSR-GLX	Units	Results	Qual	Results	Qual
trans-1,2-Dichloroethene	156-60-5		1	1	2500			0.1	0.1	1	mg/kg	0.0016	U	-	-
Trichloroethene	79-01-6		0.3	0.3	810			0.1	0.03	0.3	mg/kg	0.00052	U	-	-
1,2-Dichlorobenzene	95-50-1		9	100	330			0.9	0.9	90	mg/kg	0.0021	U	-	-
1,3-Dichlorobenzene	541-73-1		3	200	500			0.3	0.3	30	mg/kg	0.0021	U	-	-
1,4-Dichlorobenzene	106-46-7		0.7	1	1200			0.1	0.07	1	mg/kg	0.0021	U	-	-
Methyl tert butyl ether	1634-04-4		0.1	100	500			0.1	0.01	1.9	mg/kg	0.0021	U	-	-
p/m-Xylene	179601-23-1		100	100	270			10	10	100	mg/kg	0.0021	U	-	-
o-Xylene	95-47-6		100	100	270			10	10	100	mg/kg	0.001	U	-	-
Xylenes, Total	1330-20-7		100	100	270			10	10	100	mg/kg	0.001	U	-	-
cis-1,2-Dichloroethene	156-59-2		0.1	0.1	500			0.1	0.01	0.1	mg/kg	0.001	U	-	-
1,2-Dichloroethene, Total	540-59-0		0.3					0.1		0.4	mg/kg	0.001	U	-	-
Dibromomethane	74-95-3		500	5000				50	50	2500	mg/kg	0.0021	U	-	-
1,2,3-Trichloropropane	96-18-4		100	1000				10	10	500	mg/kg	0.0021	U	-	-
Styrene	100-42-5		3	4	630			0.3	0.3	4	mg/kg	0.001	U	-	-
Dichlorodifluoromethane	75-71-8		1000	10000				100	100	2500	mg/kg	0.01	U	-	-
Acetone	67-64-1		6	50	350			0.6	0.6	50	mg/kg	0.049	U	-	-
Carbon disulfide	75-15-0		100	1000				10	10	500	mg/kg	0.01	U	-	-
Methyl ethyl ketone	78-93-3		4	50	350			0.4	0.4	40	mg/kg	0.01	U	-	-
Methyl isobutyl ketone	108-10-1		0.4	50	400			0.1	0.04	4	mg/kg	0.01	U	-	-
2-Hexanone	591-78-6		100	1000				10	10	500	mg/kg	0.01	U	-	-
Bromochloromethane	74-97-5							0.01			mg/kg	0.0021	U	-	-
Tetrahydrofuran	109-99-9		500	5000				50	50	2500	mg/kg	0.0042	U	-	-
2,2-Dichloropropane	594-20-7							0.01	0.01	0.1	mg/kg	0.0021	U	-	-
1,2-Dibromoethane	106-93-4		0.1	0.1	0.33			0.1	0.01	0.1	mg/kg	0.001	U	-	-
1,3-Dichloropropane	142-28-9		500	5000				50	50	2500	mg/kg	0.0021	U	-	-
1,1,1,2-Tetrachloroethane	630-20-6		0.1	0.1	150			0.1	0.01	0.1	mg/kg	0.00052	U	-	-
Bromobenzene	108-86-1		100	1000				10	10	500	mg/kg	0.0021	U	-	-
n-Butylbenzene	104-51-8							0.01		500	mg/kg	0.001	U	-	-
sec-Butylbenzene	135-98-8							0.01		500	mg/kg	0.001	U	-	-
tert-Butylbenzene	98-06-6		100	1000				10	10	500	mg/kg	0.0021	U	-	-
o-Chlorotoluene	95-49-8		100	1000				10	10	500	mg/kg	0.0021	U	-	-
p-Chlorotoluene	106-43-4							0.01	1	500	mg/kg	0.0021	U	-	-
1,2-Dibromo-3-chloropropane	96-12-8		10	100				1	1	75	mg/kg	0.0031	U	-	-
Hexachlorobutadiene	87-68-3		30	100	54			3	3	100	mg/kg	0.0042	U	-	-
Isopropylbenzene	98-82-8		1000	10000				100	100	2500	mg/kg	0.001	U	-	-
p-Isopropyltoluene	99-87-6		100	1000				10	10	500	mg/kg	0.001	U	-	-
Naphthalene	91-20-3	0.5	4	20	3000			4	0.4	20	mg/kg	0.0042	U	-	-
n-Propylbenzene	103-65-1		100	1000				10	10	500	mg/kg	0.001	U	-	-
1,2,3-Trichlorobenzene	87-61-6							0.01			mg/kg	0.0021	U	-	-
1,2,4-Trichlorobenzene	120-82-1		2	6	450			0.2	0.2	6	mg/kg	0.0021	U	-	-
1,3,5-Trimethylbenzene	108-67-8		10	100				1	1	75	mg/kg	0.0021	U	-	-
1,2,4-Trimethylbenzene	95-63-6		1000	10000				100	100	2500	mg/kg	0.0021	U	-	-
Diethyl ether	60-29-7		100	1000				10	10	500	mg/kg	0.0021	U	-	-
Diisopropyl Ether	108-20-3		100	1000				10	10	500	mg/kg	0.0021	U	-	-
Ethyl-Tert-Butyl-Ether	637-92-3							0.01			mg/kg	0.0021	U	-	-
Tertiary-Amyl Methyl Ether	994-05-8							0.01			mg/kg	0.0021	U	-	-
1,4-Dioxane	123-91-1		0.2	6	450			0.1	0.02	2	mg/kg	0.083	U	-	-
Total VOCs						10	4				mg/kg	0.04958		-	-
Petroleum Hydrocarbon Quantitation															
TPH (C10-C36)	NONE		1000	3000	500	5000	2500	500	1000	2500	mg/kg	-	-	980	

Yellow shading indicates detected result is equal to or above one or more of the listed criteria, except for MA Background Level Natural soil.

Gray shading indicates nondetect detection limit is above one or more of the listed criteria, except for MA Background Level Natural soil.

RCS-1-14: MCP 2014 RCS-1 Reportable Concentrations Criteria effective April 25, 2014.
RCS-2-14: MCP 2014 RCS-2 Reportable Concentrations Criteria effective April 25, 2014.
BUD-S3/G3: MassDEP Proposed S3, GW-3 Beneficial Use Determination (BUD) Values Criteria per Draft Interim Guidance Document effective March 18, 2004.
MA-BLNS: Background Level Natural soil current as of 10/24/07
MA-LLAND: Lined Landfill Limits current as of August, 1997
MA-ULAND: UnLined Landfill Limits current as of August, 1997
TRC-SSSR-GLX: Site Specific Soil Reuse Criteria: Vehicle Maintenance Facility for GLX Project Criteria per client-provided Table X February 21, 2018.
MA-Dudley <RCS-2 Acceptance Criteria, Revised January 15, 2020.
Saugus: Acceptance Criteria for Aggregate Industries - Saugus Quarry, Table 1.

U - Not detected at the reported detection limit for the sample.

Table 2 - Summary of Soil Sample Analytical Results
MBTA Green Line Extension Project
Somerville, Massachusetts
November 3, 2022

LOCATION											GLC-WASHSTLANDSCAPE-COMP		GLC-WASHSTLANDSCAPE-VOC(3)		
SAMPLING DATE											11/3/2022		11/3/2022		
LAB SAMPLE ID											L2261771-01		L2261771-02		
SAMPLE TYPE											SOIL		SOIL		
	CasNum	MA-BLNS	RCS-1-14	RCS-2-14	BUD-S3/G3	MA-LLAND	MA-ULAND	Saugus	Dudley <RCS-2	TRC-SSSR-GLX	Units	Results	Qual	Results	Qual
General Chemistry															
Specific Conductance @ 25 C		NONE				8000	4000	2000	2000		umhos/cm	120		-	-
Solids, Total		NONE									%	92.3		77.6	
pH (H)		12408-02-5						5-9	5-9	2-12.5	SU	8.3		-	-
Cyanide, Reactive		57-12-5						250	250	250	mg/kg	10	U	-	-
Sulfide, Reactive		NONE						500	500	500	mg/kg	10	U	-	-
Ignitability of Solids															
Ignitability		NONE						>140°	Not Ignitable (NI)	NI		NI		-	-
MCP Chlorinated Herbicides															
MCP		93-65-2						3.3			mg/kg	3.5	U	-	-
MCPA		94-74-6		100	1000			10	100		mg/kg	3.5	U	-	-
Dalapon		75-99-0		1000	10000			100	1000		mg/kg	0.035	U	-	-
Dicamba		1918-00-9		500	5000			50	500		mg/kg	0.035	U	-	-
Dichloroprop		120-36-5						0.08			mg/kg	0.035	U	-	-
2,4-D		94-75-7		100	1000			10	100		mg/kg	0.035	U	-	-
2,4-DB		94-82-6		100	1000			10	100		mg/kg	0.035	U	-	-
2,4,5-T		93-76-5		100	1000			10	100		mg/kg	0.035	U	-	-
2,4,5-TP (Silvex)		93-72-1		100	1000			10	100		mg/kg	0.035	U	-	-
MCP Organochlorine Pesticides															
Delta-BHC		319-86-8		10	100			1	10		mg/kg	0.00167	U	-	-
Lindane		58-89-9		0.003	0.5	0.46		0.0003	0.05		mg/kg	0.000557	U	-	-
Alpha-BHC		319-84-6		50	500			5	50		mg/kg	0.000697	U	-	-
Beta-BHC		319-85-7		10	100			1	10		mg/kg	0.00167	U	-	-
Heptachlor		76-44-8		0.3	2	4.2		0.05	0.2		mg/kg	0.000836	U	-	-
Aldrin		309-00-2		0.08	0.5	0.7		0.05	0.05		mg/kg	0.00167	U	-	-
Heptachlor epoxide		1024-57-3		0.1	0.9	0.35		0.05	0.09		mg/kg	0.00314	U	-	-
Endrin		72-20-8		10	20	7		1	2		mg/kg	0.000697	U	-	-
Endrin ketone		53494-70-5						0.008			mg/kg	0.00167	U	-	-
Dieldrin		60-57-1		0.08	0.5	1		0.05	0.05		mg/kg	0.00104	U	-	-
4,4'-DDE		72-55-9		6	30	14		0.6	3		mg/kg	0.00167	U	-	-
4,4'-DDD		72-54-8		8	40	14		0.8	4		mg/kg	0.00167	U	-	-
4,4'-DDT		50-29-3		6	30	14		0.6	3		mg/kg	0.00314	U	-	-
Endosulfan I		959-98-8		0.5	1	1.2		0.05	0.1		mg/kg	0.00167	U	-	-
Endosulfan II		33213-65-9		0.5	1	1.2		0.05	0.1		mg/kg	0.00167	U	-	-
Endosulfan sulfate		1031-07-8						0.008			mg/kg	0.000697	U	-	-
Methoxychlor		72-43-5		200	400	140		20	40		mg/kg	0.00314	U	-	-
Chlordane		57-74-9		0.7	30	27		0.07	3		mg/kg	0.0139	U	-	-
Hexachlorobenzene		118-74-1		0.7	0.8	15		0.07	0.08	0.8	mg/kg	0.00167	U	-	-
MCP Polychlorinated Biphenyls															
Aroclor 1016		12674-11-2		1	4	1.6				4	mg/kg	0.0345	U	-	-
Aroclor 1221		11104-28-2		1	4	1.6				4	mg/kg	0.0345	U	-	-
Aroclor 1232		11141-16-5		1	4	1.6				4	mg/kg	0.0345	U	-	-
Aroclor 1242		53469-21-9		1	4	1.6				4	mg/kg	0.0345	U	-	-
Aroclor 1248		12672-29-6		1	4	1.6				4	mg/kg	0.0345	U	-	-
Aroclor 1254		11097-69-1		1	4	1.6				4	mg/kg	0.0345	U	-	-
Aroclor 1260		11096-82-5		1	4	1.6				4	mg/kg	0.0345	U	-	-
Aroclor 1262		37324-23-5		1	4	1.6					mg/kg	0.0345	U	-	-
Aroclor 1268		11100-14-4		1	4	1.6					mg/kg	0.0345	U	-	-
PCBs, Total		1336-36-3		1	4	1.6	2	2	0.1	4	mg/kg	0.0345	U	-	-
MCP Semivolatile Organics															
Acenaphthene		83-32-9	0.5	4	3000	5000		4	5	69	mg/kg	0.14	U	-	-
1,2,4-Trichlorobenzene		120-82-1		2	6	450		0.2	0.6	6	mg/kg	0.18	U	-	-
Hexachlorobenzene		118-74-1		0.7	0.8	15		0.1	0.08	0.8	mg/kg	0.074	U	-	-
Bis(2-chloroethyl)ether		111-44-4		0.7	0.7	4.7		0.1	0.07	0.7	mg/kg	0.074	U	-	-
2-Chloronaphthalene		91-58-7		1000	10000			100	100	2500	mg/kg	0.18	U	-	-
1,2-Dichlorobenzene		95-50-1		9	100	330		0.9	10	90	mg/kg	0.18	U	-	-
1,3-Dichlorobenzene		541-73-1		3	200	500		0.3	20	30	mg/kg	0.18	U	-	-
1,4-Dichlorobenzene		106-46-7		0.7	1	1200		0.1	0.1	1	mg/kg	0.074	U	-	-
3,3'-Dichlorobenzidine		91-94-1		3	20	20		0.3	2	20	mg/kg	0.18	U	-	-
2,4-Dinitrotoluene		121-14-2		0.7	10	36		0.1	1	7	mg/kg	0.074	U	-	-
2,6-Dinitrotoluene		606-20-2		100	1000			10	100	500	mg/kg	0.18	U	-	-
Azobenzene		103-33-3						0.67	50	375	mg/kg	0.18	U	-	-
Fluoranthene		206-44-0	4	1000	3000	5000		1000	40	2500	mg/kg	0.59		-	-
4-Bromophenyl phenyl ether		101-55-3		100	1000			10	100	500	mg/kg	0.18	U	-	-
Bis(2-chloroisopropyl)ether		108-60-1		0.7	0.7	74		0.1	0.07	0.7	mg/kg	0.074	U	-	-
Bis(2-chloroethoxy)methane		111-91-1		500	5000			50	100	2500	mg/kg	0.19	U	-	-
Hexachlorobutadiene		87-68-3		30	100	54		3	10	100	mg/kg	0.18	U	-	-
Hexachloroethane		67-72-1		0.7	3	74		0.1	0.3	3	mg/kg	0.074	U	-	-
Isophorone		78-59-1		100	1000			10	100	500	mg/kg	0.16	U	-	-
Naphthalene		91-20-3	0.5	4	20	3000		4	5	20	mg/kg	0.18	U	-	-
Nitrobenzene		98-95-3		500	5000			50	100	2500	mg/kg	0.16	U	-	-
Bis(2-ethylhexyl)phthalate		117-81-7		90	600	230		60	60	600	mg/kg	0.18	U	-	-
Butyl benzyl phthalate		85-68-7		100	1000			10	100	500	mg/kg	0.18	U	-	-
Di-n-butylphthalate		84-74-2		50	500			5	50	375	mg/kg	0.18	U	-	-
Di-n-octylphthalate		117-84-0		1000	10000			100	100	2500	mg/kg	0.18	U	-	-
Diethyl phthalate		84-66-2		10	200	290		1	20	75	mg/kg	0.18	U	-	-
Dimethyl phthalate		131-11-3		0.7	50	550		0.1	5	7	mg/kg	0.074	U	-	-

Table 2 - Summary of Soil Sample Analytical Results
MBTA Green Line Extension Project
Somerville, Massachusetts
November 3, 2022

LOCATION												GLC-WASHSTLANDSCAPE-COMP	GLC-WASHSTLANDSCAPE-VOC(3)		
SAMPLING DATE												11/3/2022	11/3/2022		
LAB SAMPLE ID												L2261771-01	L2261771-02		
SAMPLE TYPE												SOIL	SOIL		
	CasNum	MA-BLNS	RCS-1-14	RCS-2-14	BUD-S3/G3	MA-LLAND	MA-ULAND	Saugus	Dudley <RCS-2	TRC-SSSR-GLX	Units	Results	Qual	Results	Qual
Benzo(a)anthracene	56-55-3	2	7	40	160			7	20	40	mg/kg	0.33		-	-
Benzo(a)pyrene	50-32-8	2	2	7	16			2	7	7	mg/kg	0.47		-	-
Benzo(b)fluoranthene	205-99-2	2	7	40	160			7	20	40	mg/kg	0.49		-	-
Benzo(k)fluoranthene	207-08-9	1	70	400	1600			70	10	400	mg/kg	0.18		-	-
Chrysene	218-01-9	2	70	400	3400			70	20	400	mg/kg	0.35		-	-
Acenaphthylene	208-96-8	0.5	1	10	14			1	5	10	mg/kg	0.14	U	-	-
Anthracene	120-12-7	1	1000	3000	5000			1000	10	2500	mg/kg	0.1		-	-
Benzo(ghi)perylene	191-24-2	1	1000	3000	5000			1000	10	2500	mg/kg	0.29		-	-
Fluorene	86-73-7	1	1000	3000	5000			1000	10	2500	mg/kg	0.18	U	-	-
Phenanthrene	85-01-8	3	10	1000	3000			10	30	532.5	mg/kg	0.3		-	-
Dibenzo(a,h)anthracene	53-70-3	0.5	0.7	4	16			0.7	4	4	mg/kg	0.074	U	-	-
Indeno(1,2,3-cd)pyrene	193-39-5	1	7	40	160			7	10	40	mg/kg	0.33		-	-
Pyrene	129-00-0	4	1000	3000	5000			1000	40	2500	mg/kg	0.6		-	-
Aniline	62-53-3		1000	10000				100	100	2500	mg/kg	0.21	U	-	-
4-Chloroaniline	106-47-8		1	3	3.3			0.1	0.3	3	mg/kg	0.18	U	-	-
Dibenzofuran	132-64-9		100	1000				100	100	500	mg/kg	0.18	U	-	-
2-Methylnaphthalene	91-57-6	0.5	0.7	80	240			0.7	5	25	mg/kg	0.074	U	-	-
Acetophenone	98-86-2		1000	10000				100	1000	2500	mg/kg	0.18	U	-	-
2,4,6-Trichlorophenol	88-06-2		0.7	20	19			0.1	2	7	mg/kg	0.074	U	-	-
2-Chlorophenol	95-57-8		0.7	100	310			0.1	100	7	mg/kg	0.074	U	-	-
2,4-Dichlorophenol	120-83-2		0.7	40	40			0.1	4	7	mg/kg	0.074	U	-	-
2,4-Dimethylphenol	105-67-9		0.7	100	1300			0.1	10	7	mg/kg	0.074	U	-	-
2-Nitrophenol	88-75-5		100	1000				10	100	500	mg/kg	0.38	U	-	-
4-Nitrophenol	100-02-7		100	1000				10	100	500	mg/kg	0.25	U	-	-
2,4-Dinitrophenol	51-28-5		3	50	45			0.3	5	30	mg/kg	0.85	U	-	-
Pentachlorophenol	87-86-5		3	10	13			0.3	1	10	mg/kg	0.35	U	-	-
Phenol	108-95-2		1	20	16			0.1	2	10	mg/kg	0.18	U	-	-
2-Methylphenol	95-48-7		500	5000				50	100	2500	mg/kg	0.18	U	-	-
3-Methylphenol/4-Methylphenol	108-39-4/106-44-5		500	5000				50	100	2500	mg/kg	0.25	U	-	-
2,4,5-Trichlorophenol	95-95-4		4	600	580			0.4	60	40	mg/kg	0.18	U	-	-
Pyridine	110-86-1		500	5000				50	100		mg/kg	0.19	U	-	-
Biphenyl	92-52-4		0.05	6				0.005	0.6		mg/kg	0.035	U	-	-
Total SVOCs						100	100				mg/kg	4.03		-	-
MCP Total Metals														-	-
Antimony, Total	7440-36-0	1	20	30	16			20	10	30	mg/kg	2.05	U	-	-
Arsenic, Total	7440-38-2	20	20	20	11	40	40	20	20	20	mg/kg	6.34		-	-
Barium, Total	7440-39-3	50	1000	3000	2100			1000	375	2500	mg/kg	37.7		-	-
Beryllium, Total	7440-41-7	0.4	90	200	10			90	4	200	mg/kg	0.272		-	-
Cadmium, Total	7440-43-9	2	70	100	16	80	30	70	20	100	mg/kg	0.411	U	-	-
Chromium, Total	7440-47-3	30	100	200	570	1000	1000	100	200	200	mg/kg	17.3		-	-
Lead, Total	7439-92-1	100	200	600	110	2000	1000	200	500	600	mg/kg	78.4		-	-
Mercury, Total	7439-97-6	0.3	20	30	16	10	10	20	3	30	mg/kg	0.137		-	-
Nickel, Total	7440-02-0	20	600	1000	350			600	150	1000	mg/kg	14.2		-	-
Selenium, Total	7782-49-2	0.5	400	700	390			400	5	700	mg/kg	2.05	U	-	-
Silver, Total	7440-22-4	0.6	100	200	110			100	6	200	mg/kg	0.411	U	-	-
Thallium, Total	7440-28-0	0.6	8	60	37			8	6	60	mg/kg	2.05	U	-	-
Vanadium, Total	7440-62-2	30	400	700	530			400	225	700	mg/kg	30.3		-	-
Zinc, Total	7440-66-6	100	1000	3000	5000			1000	500	2500	mg/kg	84.4		-	-
MCP Volatile Organics by EPA 5035															
Methylene chloride	75-09-2		0.1	4	900			0.1	0.01	1	mg/kg	-	-	0.0055	U
1,1-Dichloroethane	75-34-3		0.4	9	1300			0.1	0.04	4	mg/kg	-	-	0.0011	U
Chloroform	67-66-3		0.2	0.2	410			0.1	0.02	0.2	mg/kg	-	-	0.0016	U
Carbon tetrachloride	56-23-5		5	5	220			0.5	0.5	5	mg/kg	-	-	0.0011	U
1,2-Dichloropropane	78-87-5		0.1	0.1	280			0.1	0.01	0.1	mg/kg	-	-	0.0011	U
Dibromochloromethane	124-48-1		0.005	0.03	340			0.0005	0.0005	0.03	mg/kg	-	-	0.0011	U
1,1,2-Trichloroethane	79-00-5		0.1	2	91			0.1	0.01	1	mg/kg	-	-	0.0011	U
Tetrachloroethene	127-18-4		1	10	370			0.1	0.1	10	mg/kg	-	-	0.0045	
Chlorobenzene	108-90-7		1	3	110			0.1	0.1	3	mg/kg	-	-	0.00055	U
Trichlorofluoromethane	75-69-4		1000	10000				100	100	2500	mg/kg	-	-	0.0044	U
1,2-Dichloroethane	107-06-2		0.1	0.1	310			0.1	0.01	0.1	mg/kg	-	-	0.0011	U
1,1,1-Trichloroethane	71-55-6		30	600	1400			3	3	225	mg/kg	-	-	0.00055	U
Bromodichloromethane	75-27-4		0.1	0.1	460			0.1	0.01	0.1	mg/kg	-	-	0.00055	U
trans-1,3-Dichloropropene	10061-02-6		0.01	0.4	140			0.001	0.001	0.1	mg/kg	-	-	0.0011	U
cis-1,3-Dichloropropene	10061-01-5		0.01	0.4	140			0.001	0.001	0.1	mg/kg	-	-	0.00055	U
1,3-Dichloropropene, Total	542-75-6		0.01	0.4	140			0.001	-	0.1	mg/kg	-	-	0.00055	U
1,1-Dichloropropene	563-58-6							0.01	0.001	0.1	mg/kg	-	-	0.00055	U
Bromoform	75-25-2		0.1	1	800			0.1	0.01	1	mg/kg	-	-	0.0044	U
1,1,2,2-Tetrachloroethane	79-34-5		0.005	0.02	19			0.0005	0.0005	0.02	mg/kg	-	-	0.00055	U
Benzene	71-43-2		2	200	540			0.2	0.2	20	mg/kg	-	-	0.00055	U
Toluene	108-88-3		30	1000	520			3	3	225	mg/kg	-	-	0.0011	U
Ethylbenzene	100-41-4		40	1000	230			4	4	300	mg/kg	-	-	0.0011	U
Chloromethane	74-87-3		100	1000				10	10	500	mg/kg	-	-	0.0044	U
Bromomethane	74-83-9		0.5	0.5	32			0.1	0.05	0.5	mg/kg	-	-	0.0022	U
Vinyl chloride	75-01-4		0.7	0.7	12			0.1	0.07	0.7	mg/kg	-	-	0.0011	U
Chloroethane	75-00-3		100	1000				10	10	500	mg/kg	-	-	0.0022	U
1,1-Dichloroethene	75-35-4		3	40	1600			0.3	0.3	30	mg/kg	-	-	0.0011	U
trans-1,2-Dichloroethene	156-60-5		1	1	2500			0.1	0.1	1	mg/kg	-	-	0.0016	U

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Somerville, Massachusetts
November 3, 2022

LOCATION											GLC-WASHSTLANDSCAPE-COMP		GLC-WASHSTLANDSCAPE-VOC(3)		
SAMPLING DATE											11/3/2022		11/3/2022		
LAB SAMPLE ID											L2261771-01		L2261771-02		
SAMPLE TYPE											SOIL		SOIL		
	CasNum	MA-BLNS	RCS-1-14	RCS-2-14	BUD-S3/G3	MA-LLAND	MA-ULAND	Saugus	Dudley <RCS-2	TRC-SSSR-GLX	Units	Results	Qual	Results	Qual
Trichloroethene	79-01-6		0.3	0.3	810			0.1	0.03	0.3	mg/kg	-	-	0.00055	U
1,2-Dichlorobenzene	95-50-1		9	100	330			0.9	0.9	90	mg/kg	-	-	0.0022	U
1,3-Dichlorobenzene	541-73-1		3	200	500			0.3	0.3	30	mg/kg	-	-	0.0022	U
1,4-Dichlorobenzene	106-46-7		0.7	1	1200			0.1	0.07	1	mg/kg	-	-	0.0022	U
Methyl tert butyl ether	1634-04-4		0.1	100	500			0.1	0.01	1.9	mg/kg	-	-	0.0022	U
p/m-Xylene	179601-23-1		100	100	270			10	10	100	mg/kg	-	-	0.0022	U
o-Xylene	95-47-6		100	100	270			10	10	100	mg/kg	-	-	0.0011	U
Xylenes, Total	1330-20-7		100	100	270			10	10	100	mg/kg	-	-	0.0011	U
cis-1,2-Dichloroethene	156-59-2		0.1	0.1	500			0.1	0.01	0.1	mg/kg	-	-	0.0011	U
1,2-Dichloroethene, Total	540-59-0		0.3					0.1		0.4	mg/kg	-	-	0.0011	U
Dibromomethane	74-95-3		500	5000				50	50	2500	mg/kg	-	-	0.0022	U
1,2,3-Trichloropropane	96-18-4		100	1000				10	10	500	mg/kg	-	-	0.0022	U
Styrene	100-42-5		3	4	630			0.3	0.3	4	mg/kg	-	-	0.0011	U
Dichlorodifluoromethane	75-71-8		1000	10000				100	100	2500	mg/kg	-	-	0.011	U
Acetone	67-64-1		6	50	350			0.6	0.6	50	mg/kg	-	-	0.028	U
Carbon disulfide	75-15-0		100	1000				10	10	500	mg/kg	-	-	0.011	U
Methyl ethyl ketone	78-93-3		4	50	350			0.4	0.4	40	mg/kg	-	-	0.011	U
Methyl isobutyl ketone	108-10-1		0.4	50	400			0.1	0.04	4	mg/kg	-	-	0.011	U
2-Hexanone	591-78-6		100	1000				10	10	500	mg/kg	-	-	0.011	U
Bromochloromethane	74-97-5							0.01			mg/kg	-	-	0.0022	U
Tetrahydrofuran	109-99-9		500	5000				50	50	2500	mg/kg	-	-	0.0044	U
2,2-Dichloropropane	594-20-7							0.01	0.01	0.1	mg/kg	-	-	0.0022	U
1,2-Dibromoethane	106-93-4		0.1	0.1	0.33			0.1	0.01	0.1	mg/kg	-	-	0.0011	U
1,3-Dichloropropane	142-28-9		500	5000				50	50	2500	mg/kg	-	-	0.0022	U
1,1,1,2-Tetrachloroethane	630-20-6		0.1	0.1	150			0.1	0.01	0.1	mg/kg	-	-	0.00055	U
Bromobenzene	108-86-1		100	1000				10	10	500	mg/kg	-	-	0.0022	U
n-Butylbenzene	104-51-8							0.01		500	mg/kg	-	-	0.0011	U
sec-Butylbenzene	135-98-8							0.01		500	mg/kg	-	-	0.0011	U
tert-Butylbenzene	98-06-6		100	1000				10	10	500	mg/kg	-	-	0.0022	U
o-Chlorotoluene	95-49-8		100	1000				10	10	500	mg/kg	-	-	0.0022	U
p-Chlorotoluene	106-43-4							0.01	1	500	mg/kg	-	-	0.0022	U
1,2-Dibromo-3-chloropropane	96-12-8		10	100				1	1	75	mg/kg	-	-	0.0033	U
Hexachlorobutadiene	87-68-3		30	100	54			3	3	100	mg/kg	-	-	0.0044	U
Isopropylbenzene	98-82-8		1000	10000				100	100	2500	mg/kg	-	-	0.0011	U
p-Isopropyltoluene	99-87-6		100	1000				10	10	500	mg/kg	-	-	0.0011	U
Naphthalene	91-20-3	0.5	4	20	3000			4	0.4	20	mg/kg	-	-	0.0044	U
n-Propylbenzene	103-65-1		100	1000				10	10	500	mg/kg	-	-	0.0011	U
1,2,3-Trichlorobenzene	87-61-6							0.01			mg/kg	-	-	0.0022	U
1,2,4-Trichlorobenzene	120-82-1		2	6	450			0.2	0.2	6	mg/kg	-	-	0.0022	U
1,3,5-Trimethylbenzene	108-67-8		10	100				1	1	75	mg/kg	-	-	0.0022	U
1,2,4-Trimethylbenzene	95-63-6		1000	10000				100	100	2500	mg/kg	-	-	0.0022	U
Diethyl ether	60-29-7		100	1000				10	10	500	mg/kg	-	-	0.0022	U
Diisopropyl Ether	108-20-3		100	1000				10	10	500	mg/kg	-	-	0.0022	U
Ethyl-Tert-Butyl-Ether	637-92-3							0.01			mg/kg	-	-	0.0022	U
Tertiary-Amyl Methyl Ether	994-05-8							0.01			mg/kg	-	-	0.0022	U
1,4-Dioxane	123-91-1		0.2	6	450			0.1	0.02	2	mg/kg	-	-	0.088	U
Total VOCs						10	4				mg/kg	-	-	0.0045	
Petroleum Hydrocarbon Quantitation															
TPH (C10-C36)	NONE		1000	3000	500	5000	2500	500	1000	2500	mg/kg	92.8		-	-

Gray shading indicates nondetect detection limit is above one or more of the listed criteria, except for MA Background Level Natural soil.

RCS-1-14: MCP 2014 RCS-1 Reportable Concentrations Criteria effective April 25, 2014.
RCS-2-14: MCP 2014 RCS-2 Reportable Concentrations Criteria effective April 25, 2014.
BUD-S3/G3: MassDEP Proposed S3, GW-3 Beneficial Use Determination (BUD) Values Criteria per Draft Interim Guidance Document effective March 18, 2004.
MA-BLNS: Background Level Natural soil current as of 10/24/07
MA-LLAND: Lined Landfill Limits current as of August, 1997
MA-ULAND: UnLined Landfill Limits current as of August, 1997
TRC-SSSR-GLX: Site Specific Soil Reuse Criteria: Vehicle Maintenance Facility for GLX Project Criteria per client-provided Table X February 21, 2018.
MA-Dudley <RCS-2 Acceptance Criteria, Revised January 15, 2020.
Saugus: Acceptance Criteria for Aggregate Industries - Saugus Quarry, Table 1.

U - Not detected at the reported detection limit for the sample.

Table 2 - Soil Characterization Analytical Results
WETA Green Line Extension Project
Somerville, Massachusetts
April 1, 2023 - September 30, 2023

	CaseNum	MA-BLNS	RCS-1-14	RCS-2-14	BUD-SVG3	MA-LLAND	MA-LAND	Sausus	Dutley -RCS-2	TRC -SSR-GLX	SAMPLE TYPE	LOCATION SAMPLING DATE LAB SAMPLE ID		GLX-DC-WASH ST DRAINAGE - VOC-6 9/8/2023 1330246-62		GLX-DC-WASH ST DRAINAGE - COMP 9/8/2023 1330246-61	
												SOIL	Units	Results	Qual	Results	Qual
General Chemistry																	
Specific Conductance @ 25 C	NONE					8000	4000	2000	2000		umhos/cm				-	350	
Solids, Total														96.7	-	95.9	
pH (H)	12408-02-5							5-9	5-9	2-12.5					-	7.54	
Cyanide, Reactive	97-12-9							250	250	250	mg/L			-	-	10	U
Sulfide, Reactive	NONE							500	500	500	mg/L			-	-	10	U
Integrity of Solids																	
Integrity	NONE							>140	Not Intact (NI)	NI				-	-	NI	
MCP Organochlorine Herbicides																	
MCP	93-65-2							3.4			mg/L			-	-	3.4	U
MCPA	94-74-6	100	1000					10	100		mg/L			-	-	3.4	U
Diazinon	75-99-0	1000	10000					100	1000		mg/L			-	-	0.034	U
Dicamba	1918-00-9	500	5000					500	500		mg/L			-	-	0.034	U
Dichlorodane	123-86-5							0.08			mg/L			-	-	0.034	U
2,4-D	94-75-7	100	1000					10	100		mg/L			-	-	0.034	U
2,4-DB	94-82-6	100	1000					10	100		mg/L			-	-	0.034	U
2,4,5-T	93-76-5	100	1000					10	100		mg/L			-	-	0.034	U
2,4,5-TP (Silver)	93-72-1	100	1000					10	100		mg/L			-	-	0.034	U
MCP Organochlorine Pesticides																	
Delta-BHC	319-86-8	10	100					1	10		mg/L			-	-	0.00162	U
Lindane	56-89-9	0.003	0.5	0.46				0.0003	0.05		mg/L			-	-	0.00054	U
Alpha-BHC	319-84-6	50	500					5	50		mg/L			-	-	0.000675	U
Beta-BHC	319-85-7	10	100					1	10		mg/L			-	-	0.00162	U
Heptachlor	74-44-8	0.3	2	4.2				0.05	0.2		mg/L			-	-	0.00081	U
Adrin	305-00-2	0.08	0.5	0.7				0.05	0.05		mg/L			-	-	0.00162	U
Heptachlor epoxide	1024-67-3	0.1	0.9	0.35				0.05	0.05		mg/L			-	-	0.00162	U
Endrin	72-20-5	10	20	7				2	2		mg/L			-	-	0.000675	U
Endrin ketone	13494-70-5							0.08			mg/L			-	-	0.00162	U
Dieldrin	60-57-1	0.08	0.5	1				0.05	0.05		mg/L			-	-	0.00101	U
4,4'-DDE	72-55-9	6	30	14				0.6	3		mg/L			-	-	0.00162	U
4,4'-DDD	72-54-8	6	40	14				0.6	4		mg/L			-	-	0.00162	U
4,4'-DDT	50-29-3	6	30	14				0.6	3		mg/L			-	-	0.00304	U
Endosulfan I	959-86-8	0.5	1	1.2				0.05	0.1		mg/L			-	-	0.00162	U
Endosulfan II	33513-65-9	0.5	1	1.2				0.05	0.1		mg/L			-	-	0.00162	U
Endosulfan sulfate	1031-07-8							0.008	40		mg/L			-	-	0.000675	U
Methoxychlor	72-43-5	200	400	140				20	40		mg/L			-	-	0.00304	U
Chlorfenvinphos	67-74-9	0.7	30	27				0.07	3		mg/L			-	-	0.0135	U
Heachlorobenzene	118-74-1	0.7	0.8	15				0.07	0.8		mg/L			-	-	0.00162	U
MCP Polychlorinated Biphenyls																	
Aroclor 1016	12674-11-2	1	4	1.6					4		mg/L			-	-	0.0503	U
Aroclor 1221	11104-28-2	1	4	1.6					4		mg/L			-	-	0.0503	U
Aroclor 1238	11411-16-8	1	4	1.6					4		mg/L			-	-	0.0503	U
Aroclor 1248	93469-21-6	1	4	1.6					4		mg/L			-	-	0.0503	U
Aroclor 1254	11097-69-1	1	4	1.6					4		mg/L			-	-	0.0503	U
Aroclor 1260	11096-82-5	1	4	1.6					4		mg/L			-	-	0.0503	U
Aroclor 1262	37324-23-5	1	4	1.6					4		mg/L			-	-	0.0503	U
Aroclor 1268	11103-14-4	1	4	1.6					4		mg/L			-	-	0.0503	U
PCBs, Total	1336-36-3	1	4	1.6	2	2		0.1	0.1	4	mg/L			-	-	0.0503	U
MCP Aromatized Organics																	
Acenaphthene	83-32-9	0.5	4	3000	5000			4	5	69	mg/L			-	-	0.18	
1,2,4-Trichlorobenzene	120-82-1	2	6	450				0.2	0.6	6	mg/L			-	-	0.17	U
Hexachlorobenzene	118-74-1	0.1	0.8	15				0.1	0.08	0.8	mg/L			-	-	0.17	U
Bis(2-chloroethyl)ether	111-44-4	0.7	0.7	4.7				0.1	0.07	0.7	mg/L			-	-	0.072	U
2-Chloronaphthalene	91-58-7	1	1000	10000				100	100	2500	mg/L			-	-	0.17	U
1,2-Dichlorobenzene	95-50-7	100	1000	330				10	100	500	mg/L			-	-	0.17	U
1,3-Dichlorobenzene	541-73-1	3	200	900				0.3	20	30	mg/L			-	-	0.17	U
1,4-Dichlorobenzene	106-46-7	0.7	10	1200				0.1	0.1	1	mg/L			-	-	0.072	U
1,3-Dichlorobenzidine	91-04-1	3	20	20				0.3	2	20	mg/L			-	-	0.17	U
2,4-Dinitrofluorene	121-14-2	0.7	10	36				0.1	1	7	mg/L			-	-	0.072	U
2,6-Dinitrofluorene	506-20-2							10	100	500	mg/L			-	-	0.17	U
Acenaphthene	103-33-3	100	1000					0.67	50	375	mg/L			-	-	0.17	U
Fluoranthene	208-44-0	4	1000	3000	5000			100	40	2500	mg/L			-	-	0.17	U
4-Bromophenyl phenyl ether	101-55-3	100	1000					10	100	500	mg/L			-	-	0.17	U
Bis(2-chloroisopropyl)ether	106-60-1	0.7	0.7	74				0.1	0.07	0.7	mg/L			-	-	0.072	U
Bis(2-chloroisopropyl)methane	111-91-1	500	5000					50	100	2500	mg/L			-	-	0.18	U
Hexachlorobenzene	67-68-3	30	100	54				3	10	100	mg/L			-	-	0.17	U
Hexachloroethane	67-72-1	0.7	3	74				0.1	0.3	3	mg/L			-	-	0.072	U
Isochlorobenzene	78-59-1	100	1000					10	100	500	mg/L			-	-	0.15	U
Naphthalene	91-03-3	0.5	4	20	3000	4		4	5	20	mg/L			-	-	0.17	U
Nitrobenzene	98-95-3	500	5000					50	100	2500	mg/L			-	-	0.15	U
Bis(2-ethylhexyl)phthalate	117-81-7	90	600	230				60	60	600	mg/L			-	-	2.2	U
Bis(2-ethylhexyl)phthalate	95-68-7	100	1000					10	100	500	mg/L			-	-	0.17	U
Di-n-butylphthalate	84-74-5	50	500					5	50	375	mg/L			-	-	0.17	U
Di-n-octylphthalate	117-84-0	1000	10000					100	100	2500	mg/L			-	-	0.17	U
Diethyl phthalate	84-68-2	10	100	290				10	100	500	mg/L			-	-	0.17	U
Dimethyl phthalate	131-11-3	0.7	50	550				0.1	5	7	mg/L			-	-	0.072	U
Benzophenanthrene	56-55-3	2	7	40	160			7	20	40	mg/L			-	-	4.7	U
Benzofluoranthene	50-32-8	2	2	7	16			2	7	7	mg/L			-	-	6.3	U
Benzofluoranthene	205-99-2	2	7	40	160			7	20	40	mg/L			-	-	6.9	U
Benzofluoranthene	207-08-6	1	70	400	1600			70	10	4000	mg/L			-	-	2.7	U
Chrysene	218-01-9	2	70	400	3400			70	20	400	mg/L			-	-	6.6	U
Acenaphthylene	208-36-8	0.5	1	14				1	5	10	mg/L			-	-	0.18	U
Anthracene	120-12-7	1	1000	3000	5000			1000	10	2500	mg/L			-	-	0.63	U
Benzofluoranthene	191-24-2	1	1000	3000	5000			1000	10	2500	mg/L			-	-	4.6	U
Fluorene	86-73-7	1	1000	3000	5000			1000	10	2500	mg/L			-	-	4.6	U
Phenanthrene	85-01-6	3	10	100	3000			10	30	532.5	mg/L			-	-	1.29	U
Dibenzofluoranthene	53-70-3	0.5	0.7	4	16			0.7	4	4	mg/L			-	-	1.4	U
Indeno(1,2,3-cd)pyrene	193-39-5	7	40	40	160			7	10	40	mg/L			-	-	4.2	U
Pyrene	129-00-0	4	1000	3000	5000			1000	40	2500	mg/L			-	-	9.2	U
Aniline	62-53-3	1	1000	10000				100	100	2500	mg/L			-	-	0.2	U
4-Chloroaniline	106-47-8	1	3	3.3				0.1	0.3	3	mg/L			-	-	0.37	U
Dibenzofuran	132-64-9	100	1000					100	100	500	mg/L			-	-	0.17	U
2-Methylnaphthalene	91-57-6	0.5	0.7	80	240			0.7	5	25	mg/L			-	-	0.089	U
Acenaphthene	98-96-2	100	1000					100	100	2500	mg/L			-	-	0.17	U
2,6-Dichlorophenol	88-06-2	0.7	20	19				0.1	2	7	mg/L			-	-	0.072	U
2-Chlorophenol	95-57-8	0.7	100	310				0.1	100	7	mg/L			-	-	0.072	U
2,4-Dichlorophenol	120-83-2	0.7	40	40			</										

Appendix D Laboratory Testing Reports



ANALYTICAL REPORT

Lab Number:	L2405873
Client:	GEI Consultants 400 Unicorn Park Drive Woburn, MA 01801
ATTN:	Chris Coner
Phone:	(781) 721-4000
Project Name:	TUFTS ST
Project Number:	045163
Report Date:	02/19/24

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Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0825), DoD (L2474), FL (E87814), IL (200081), IN (C-MA-04), KY (KY98046), LA (85084), ME (MA00030), MD (350), MI (99110), NJ (MA015), NY (11627), NC (685), OH (CL106), OR (MA-0262), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #525-23-107-88708), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: TUFTS ST
Project Number: 045163

Lab Number: L2405873
Report Date: 02/19/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2405873-01	045163-31TUFT-IA1	AIR	SOMERVILLE, MA	01/31/24 12:02	02/02/24
L2405873-02	045163-31TUFT-IA2	AIR	SOMERVILLE, MA	01/31/24 10:06	02/02/24
L2405873-03	045163-31TUFT-IA3	AIR	SOMERVILLE, MA	01/31/24 10:55	02/02/24
L2405873-04	045163-31TUFT-SV1	SOIL_VAPOR	SOMERVILLE, MA	01/31/24 14:05	02/02/24
L2405873-05	045163-31TUFT-SV2	SOIL_VAPOR	SOMERVILLE, MA	01/31/24 14:00	02/02/24

Project Name: TUFTS ST

Lab Number: L2405873

Project Number: 045163

Report Date: 02/19/24

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	NO
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO
For any questions answered "No", please refer to the case narrative section on the following page(s).		

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: TUFTS ST
Project Number: 045163

Lab Number: L2405873
Report Date: 02/19/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: TUFTS ST
Project Number: 045163

Lab Number: L2405873
Report Date: 02/19/24

Case Narrative (continued)

MCP Related Narratives

Canisters were released from the laboratory on January 29, 2024. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to questions E b/I:

All samples were analyzed for a subset of the MCP compounds per the Chain of Custody.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 02/19/24

QC OUTLIER SUMMARY REPORT

Project Name: TUFTS ST**Lab Number:** L2405873**Project Number:** 045163**Report Date:** 02/19/24

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
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There are no QC Outliers associated with this report.

AIR

Project Name: TUFTS ST**Project Number:** 045163**Lab Number:** L2405873**Report Date:** 02/19/24**SAMPLE RESULTS**

Lab ID: L2405873-01
 Client ID: 045163-31TUFT-IA1
 Sample Location: SOMERVILLE, MA

Date Collected: 01/31/24 12:02
 Date Received: 02/02/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 02/16/24 03:20
 Analyst: JMB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.026	0.020	--	0.103	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	93		60-140



Project Name: TUFTS ST**Project Number:** 045163**Lab Number:** L2405873**Report Date:** 02/19/24**SAMPLE RESULTS**

Lab ID: L2405873-02
 Client ID: 045163-31TUFT-IA2
 Sample Location: SOMERVILLE, MA

Date Collected: 01/31/24 10:06
 Date Received: 02/02/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 02/16/24 04:00
 Analyst: JMB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	93		60-140



Project Name: TUFTS ST**Project Number:** 045163**Lab Number:** L2405873**Report Date:** 02/19/24**SAMPLE RESULTS**

Lab ID: L2405873-03
 Client ID: 045163-31TUFT-IA3
 Sample Location: SOMERVILLE, MA

Date Collected: 01/31/24 10:55
 Date Received: 02/02/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 02/16/24 04:39
 Analyst: JMB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	94		60-140



Project Name: TUFTS ST**Project Number:** 045163**Lab Number:** L2405873**Report Date:** 02/19/24**SAMPLE RESULTS**

Lab ID: L2405873-04
 Client ID: 045163-31TUFT-SV1
 Sample Location: SOMERVILLE, MA

Date Collected: 01/31/24 14:05
 Date Received: 02/02/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 02/17/24 18:14
 Analyst: BJB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	0.144	0.020	--	0.786	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	4.65	0.020	--	31.5	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	103		60-140
bromochloromethane	112		60-140
chlorobenzene-d5	101		60-140



Project Name: TUFTS ST**Project Number:** 045163**Lab Number:** L2405873**Report Date:** 02/19/24**SAMPLE RESULTS**

Lab ID: L2405873-05
 Client ID: 045163-31TUFT-SV2
 Sample Location: SOMERVILLE, MA

Date Collected: 01/31/24 14:00
 Date Received: 02/02/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 02/17/24 17:35
 Analyst: BJB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	0.068	0.020	--	0.270	0.079	--		1
1,1,1-Trichloroethane	1.80	0.020	--	9.82	0.109	--		1
Trichloroethene	0.451	0.020	--	2.42	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	11.4	0.020	--	77.3	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	94		60-140



Project Name: TUFTS ST

Lab Number: L2405873

Project Number: 045163

Report Date: 02/19/24

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM

Analytical Date: 02/15/24 18:50

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03 Batch: WG1885723-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1



Project Name: TUFTS ST

Lab Number: L2405873

Project Number: 045163

Report Date: 02/19/24

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM

Analytical Date: 02/17/24 16:56

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 04-05 Batch: WG1886402-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1



Lab Control Sample Analysis Batch Quality Control

Project Name: TUFTS ST

Project Number: 045163

Lab Number: L2405873

Report Date: 02/19/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 Batch: WG1885723-3								
Vinyl chloride	81		-		70-130	-		
1,1-Dichloroethene	89		-		70-130	-		
trans-1,2-Dichloroethene	87		-		70-130	-		
1,1-Dichloroethane	83		-		70-130	-		
cis-1,2-Dichloroethene	88		-		70-130	-		
1,1,1-Trichloroethane	84		-		70-130	-		
Trichloroethene	86		-		70-130	-		
1,1,2-Trichloroethane	88		-		70-130	-		
Tetrachloroethene	81		-		70-130	-		
1,1,2,2-Tetrachloroethane	93		-		70-130	-		

Lab Control Sample Analysis Batch Quality Control

Project Name: TUFTS ST

Project Number: 045163

Lab Number: L2405873

Report Date: 02/19/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 04-05 Batch: WG1886402-3								
Vinyl chloride	95		-		70-130	-		
1,1-Dichloroethene	103		-		70-130	-		
trans-1,2-Dichloroethene	98		-		70-130	-		
1,1-Dichloroethane	100		-		70-130	-		
cis-1,2-Dichloroethene	96		-		70-130	-		
1,1,1-Trichloroethane	115		-		70-130	-		
Trichloroethene	101		-		70-130	-		
1,1,2-Trichloroethane	101		-		70-130	-		
Tetrachloroethene	90		-		70-130	-		
1,1,2,2-Tetrachloroethane	100		-		70-130	-		

Project Name: TUFTS ST

Project Number: 045163

Serial_No:02192417:00
Lab Number: L2405873

Report Date: 02/19/24

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2405873-01	045163-31TUFT-IA1	02151	Flow 5	01/29/24	453104		-	-	-	Pass	3.0	3.1	3
L2405873-01	045163-31TUFT-IA1	1814	6.0L Can	01/29/24	453104	L2404167-03	Pass	-29.6	-7.1	-	-	-	-
L2405873-02	045163-31TUFT-IA2	02083	Flow 5	01/29/24	453104		-	-	-	Pass	3.0	3.4	13
L2405873-02	045163-31TUFT-IA2	3948	6.0L Can	01/29/24	453104	L2404167-03	Pass	-29.9	-2.0	-	-	-	-
L2405873-03	045163-31TUFT-IA3	0188	Flow 5	01/29/24	453104		-	-	-	Pass	3.0	3.4	13
L2405873-03	045163-31TUFT-IA3	3326	6.0L Can	01/29/24	453104	L2404167-03	Pass	-29.7	-7.7	-	-	-	-
L2405873-04	045163-31TUFT-SV1	01928	Flow 2	01/29/24	453104		-	-	-	Pass	36.1	39.7	9
L2405873-04	045163-31TUFT-SV1	118	2.7L Can	01/29/24	453104	L2403172-01	Pass	-29.8	-4.6	-	-	-	-
L2405873-05	045163-31TUFT-SV2	01039	Flow 2	01/29/24	453104		-	-	-	Pass	36.1	42.8	17
L2405873-05	045163-31TUFT-SV2	3898	2.7L Can	01/29/24	453104	L2403172-01	Pass	-29.9	-1.6	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2403172
Report Date: 02/19/24

Air Canister Certification Results

Lab ID: L2403172-01
Client ID: CAN 3730 SHELF 7
Sample Location:

Date Collected: 01/18/24 18:00
Date Received: 01/19/24
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 01/19/24 18:12
Analyst: RAY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2403172
Report Date: 02/19/24

Air Canister Certification Results

Lab ID: L2403172-01
Client ID: CAN 3730 SHELF 7
Sample Location:

Date Collected: 01/18/24 18:00
Date Received: 01/19/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2403172
Report Date: 02/19/24

Air Canister Certification Results

Lab ID: L2403172-01
Client ID: CAN 3730 SHELF 7
Sample Location:

Date Collected: 01/18/24 18:00
Date Received: 01/19/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2403172
Report Date: 02/19/24

Air Canister Certification Results

Lab ID: L2403172-01
Client ID: CAN 3730 SHELF 7
Sample Location:

Date Collected: 01/18/24 18:00
Date Received: 01/19/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L2403172**Project Number:** CANISTER QC BAT**Report Date:** 02/19/24**Air Canister Certification Results**

Lab ID: L2403172-01

Date Collected: 01/18/24 18:00

Client ID: CAN 3730 SHELF 7

Date Received: 01/19/24

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	99		60-140
Bromochloromethane	101		60-140
chlorobenzene-d5	95		60-140



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2403172
Report Date: 02/19/24

Air Canister Certification Results

Lab ID: L2403172-01
Client ID: CAN 3730 SHELF 7
Sample Location:

Date Collected: 01/18/24 18:00
Date Received: 01/19/24
Field Prep: Not Specified

Sample Depth:

Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 01/19/24 18:12
Analyst: RAY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acrolein	ND	0.050	--	ND	0.115	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2403172
Report Date: 02/19/24

Air Canister Certification Results

Lab ID: L2403172-01
Client ID: CAN 3730 SHELF 7
Sample Location:

Date Collected: 01/18/24 18:00
Date Received: 01/19/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.100	--	ND	0.518	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L2403172**Project Number:** CANISTER QC BAT**Report Date:** 02/19/24**Air Canister Certification Results**

Lab ID: L2403172-01

Date Collected: 01/18/24 18:00

Client ID: CAN 3730 SHELF 7

Date Received: 01/19/24

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	93		60-140



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2404167
Report Date: 02/19/24

Air Canister Certification Results

Lab ID: L2404167-03
Client ID: CAN 1994 SHELF 56
Sample Location:

Date Collected: 01/24/24 19:00
Date Received: 01/25/24
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 01/25/24 20:12
Analyst: JFI

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2404167
Report Date: 02/19/24

Air Canister Certification Results

Lab ID: L2404167-03
Client ID: CAN 1994 SHELF 56
Sample Location:

Date Collected: 01/24/24 19:00
Date Received: 01/25/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2404167
Report Date: 02/19/24

Air Canister Certification Results

Lab ID: L2404167-03
Client ID: CAN 1994 SHELF 56
Sample Location:

Date Collected: 01/24/24 19:00
Date Received: 01/25/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L2404167**Project Number:** CANISTER QC BAT**Report Date:** 02/19/24**Air Canister Certification Results**

Lab ID: L2404167-03

Date Collected: 01/24/24 19:00

Client ID: CAN 1994 SHELF 56

Date Received: 01/25/24

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L2404167**Project Number:** CANISTER QC BAT**Report Date:** 02/19/24**Air Canister Certification Results**

Lab ID: L2404167-03

Date Collected: 01/24/24 19:00

Client ID: CAN 1994 SHELF 56

Date Received: 01/25/24

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	98		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	99		60-140



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2404167
Report Date: 02/19/24

Air Canister Certification Results

Lab ID: L2404167-03
Client ID: CAN 1994 SHELF 56
Sample Location:

Date Collected: 01/24/24 19:00
Date Received: 01/25/24
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 01/25/24 20:12
Analyst: JFI

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acrolein	ND	0.050	--	ND	0.115	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2404167
Report Date: 02/19/24

Air Canister Certification Results

Lab ID: L2404167-03
Client ID: CAN 1994 SHELF 56
Sample Location:

Date Collected: 01/24/24 19:00
Date Received: 01/25/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.100	--	ND	0.518	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L2404167**Project Number:** CANISTER QC BAT**Report Date:** 02/19/24**Air Canister Certification Results**

Lab ID: L2404167-03

Date Collected: 01/24/24 19:00

Client ID: CAN 1994 SHELF 56

Date Received: 01/25/24

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	99		60-140



Project Name: TUFTS ST**Lab Number:** L2405873**Project Number:** 045163**Report Date:** 02/19/24**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information**Cooler** **Custody Seal**

NA Present/Intact

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2405873-01A	Canister - 6 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L2405873-02A	Canister - 6 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L2405873-03A	Canister - 6 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L2405873-04A	Canister - 2.7 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L2405873-05A	Canister - 2.7 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)

Project Name: TUFTS ST
Project Number: 045163

Lab Number: L2405873
Report Date: 02/19/24

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report



Project Name: TUFTS ST
Project Number: 045163

Lab Number: L2405873
Report Date: 02/19/24

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report



Project Name: TUFTS ST
Project Number: 045163

Lab Number: L2405873
Report Date: 02/19/24

Data Qualifiers

- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: TUFTS ST
Project Number: 045163

Lab Number: L2405873
Report Date: 02/19/24

REFERENCES

- 101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624.1: m/p-xylene, o-xylene, Naphthalene

EPA 625.1: alpha-Terpineol

EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270E: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables).

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522, EPA 537.1.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Tufts Street IA/SV Analyte List

- Vinyl chloride
- 1,1-Dichloroethene
- trans-1,2-Dichloroethane
- 1,1-Dichloroethane
- cis-1,2-Dichloroethene
- 1,1,1-Trichloroethane
- Trichloroethene
- 1,1,2-Trichloroethane
- Tetrachloroethene
- 1,1,2,2-Tetrachloroethane



ANALYTICAL REPORT

Lab Number:	L2408101
Client:	GEI Consultants 400 Unicorn Park Drive Woburn, MA 01801
ATTN:	Chris Coner
Phone:	(781) 721-4000
Project Name:	TUFTS STREET
Project Number:	045163
Report Date:	02/21/24

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2408101-01	50TUFT-B101(0-1)	SOIL	SOMERVILLE, MA	02/12/24 08:30	02/14/24
L2408101-02	50TUFT-B101(1-3)	SOIL	SOMERVILLE, MA	02/12/24 08:31	02/14/24
L2408101-03	50TUFT-B101(3-5)	SOIL	SOMERVILLE, MA	02/12/24 08:32	02/14/24
L2408101-04	50TUFT-B102(0-1)	SOIL	SOMERVILLE, MA	02/12/24 09:00	02/14/24
L2408101-05	50TUFT-B102(1-3)	SOIL	SOMERVILLE, MA	02/12/24 09:01	02/14/24
L2408101-06	50TUFT-B103(0-1)	SOIL	SOMERVILLE, MA	02/12/24 09:30	02/14/24
L2408101-07	50TUFT-B103(1-3)	SOIL	SOMERVILLE, MA	02/12/24 09:31	02/14/24
L2408101-08	50TUFT-B103(3-5)	SOIL	SOMERVILLE, MA	02/12/24 09:32	02/14/24
L2408101-09	50TUFT-B104(0-1)	SOIL	SOMERVILLE, MA	02/12/24 10:00	02/14/24
L2408101-10	50TUFT-B104(1-3)	SOIL	SOMERVILLE, MA	02/12/24 10:01	02/14/24
L2408101-11	50TUFT-B104(3-5)	SOIL	SOMERVILLE, MA	02/12/24 10:02	02/14/24
L2408101-12	50TUFT-B105(0-1)	SOIL	SOMERVILLE, MA	02/12/24 11:00	02/14/24
L2408101-13	50TUFT-B105(1-3)	SOIL	SOMERVILLE, MA	02/12/24 11:01	02/14/24

Project Name: TUFTS STREET

Lab Number: L2408101

Project Number: 045163

Report Date: 02/21/24

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES
For any questions answered "No", please refer to the case narrative section on the following page(s).		

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

Case Narrative (continued)

MCP Related Narratives

Volatile Organics

L2408101-06: Initial calibration utilized a quadratic fit for: 1,1-dichloropropene

L2408101-06D: A copy of the continuing calibration standard is included as an addendum to this report.

In reference to question G:

L2408101-06, -07, and -12: One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The WG1887347-5 Method Blank, associated with L2408101-06, has a concentration above the reporting limit for chloroform. Since the associated sample concentration is either greater than 10x the blank concentration or non-detect to the RL for this target analyte, no corrective action is required. Any result detected below the reporting limit is qualified with a "B".

L2408101-01, -02, -03, -04, -05, -07, -08, -09, -10, -11, -12, and -13: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: bromochloromethane (0.0979), bromodichloromethane (0.2758), 1,4-dioxane (0.0014), cis-1,3-dichloropropene (0.2950), 1,1,2-trichloroethane (0.1932)

Average Response Factor: 1,4-dioxane

Verification: carbon disulfide (69%)

L2408101-06: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: 1,4-dioxane (0.0018)

Average Response Factor: 1,4-dioxane

L2408101-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, and -13: The associated continuing calibration standard is outside the acceptance criteria for several compounds; however, it is within overall method allowances. Associated results are considered to be biased high if the %D is negative and biased low if the %D is positive. A copy of the continuing calibration standard is included as an addendum to this report.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Kelly O'Neill

Title: Technical Director/Representative

Date: 02/21/24

QC OUTLIER SUMMARY REPORT

Project Name: TUFTS STREET

Project Number: 045163

Lab Number: L2408101

Report Date: 02/21/24

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
MCP Volatile Organics by EPA 5035 High - Westborough Lab								
8260D	Batch QC	WG1886042-3	Chloromethane	LCS	67	70-130	07,12	potential low bias
8260D	Batch QC	WG1886042-3	1,1-Dichloroethene	LCS	68	70-130	07,12	potential low bias
8260D	Batch QC	WG1886042-3	Dichlorodifluoromethane	LCS	62	70-130	07,12	potential low bias
8260D	Batch QC	WG1886042-3	Acetone	LCS	64	70-130	07,12	potential low bias
8260D	Batch QC	WG1886042-3	Carbon disulfide	LCS	68	70-130	07,12	potential low bias
8260D	Batch QC	WG1886042-3	Tetrahydrofuran	LCS	65	70-130	07,12	potential low bias
8260D	Batch QC	WG1886042-4	Chloromethane	LCSD	67	70-130	07,12	potential low bias
8260D	Batch QC	WG1886042-4	1,1-Dichloroethene	LCSD	68	70-130	07,12	potential low bias
8260D	Batch QC	WG1886042-4	Dichlorodifluoromethane	LCSD	62	70-130	07,12	potential low bias
8260D	Batch QC	WG1886042-4	Acetone	LCSD	64	70-130	07,12	potential low bias
8260D	Batch QC	WG1886042-4	Carbon disulfide	LCSD	68	70-130	07,12	potential low bias
8260D	Batch QC	WG1886042-4	Tetrahydrofuran	LCSD	64	70-130	07,12	potential low bias
8260D	Batch QC	WG1887347-3	Chloromethane	LCS	68	70-130	06	potential low bias
8260D	Batch QC	WG1887347-3	Dichlorodifluoromethane	LCS	49	70-130	06	potential low bias
8260D	Batch QC	WG1887347-3	Acetone	LCS	68	70-130	06	potential low bias
8260D	Batch QC	WG1887347-3	Methyl ethyl ketone	LCS	62	70-130	06	potential low bias
8260D	Batch QC	WG1887347-3	Methyl isobutyl ketone	LCS	69	70-130	06	potential low bias
8260D	Batch QC	WG1887347-3	2-Hexanone	LCS	64	70-130	06	potential low bias
8260D	Batch QC	WG1887347-3	Tetrahydrofuran	LCS	58	70-130	06	potential low bias
8260D	Batch QC	WG1887347-4	Chloromethane	LCSD	64	70-130	06	potential low bias
8260D	Batch QC	WG1887347-4	Dichlorodifluoromethane	LCSD	46	70-130	06	potential low bias
8260D	Batch QC	WG1887347-4	Acetone	LCSD	67	70-130	06	potential low bias
8260D	Batch QC	WG1887347-4	Methyl ethyl ketone	LCSD	65	70-130	06	potential low bias
8260D	Batch QC	WG1887347-4	2-Hexanone	LCSD	65	70-130	06	potential low bias
8260D	Batch QC	WG1887347-4	Tetrahydrofuran	LCSD	63	70-130	06	potential low bias
8260D	Batch QC	WG1887734-3	Chloromethane	LCS	66	70-130	06	potential low bias
8260D	Batch QC	WG1887734-3	Dichlorodifluoromethane	LCS	41	70-130	06	potential low bias
8260D	Batch QC	WG1887734-3	Methyl ethyl ketone	LCS	68	70-130	06	potential low bias
8260D	Batch QC	WG1887734-3	2-Hexanone	LCS	69	70-130	06	potential low bias

QC OUTLIER SUMMARY REPORT

Project Name: TUFTS STREET

Project Number: 045163

Lab Number: L2408101

Report Date: 02/21/24

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
8260D	Batch QC	WG1887734-3	Tetrahydrofuran	LCS	64	70-130	06	potential low bias
8260D	Batch QC	WG1887734-4	Chloromethane	LCSD	65	70-130	06	potential low bias
8260D	Batch QC	WG1887734-4	Dichlorodifluoromethane	LCSD	41	70-130	06	potential low bias
8260D	Batch QC	WG1887734-4	Acetone	LCSD	69	70-130	06	potential low bias
8260D	Batch QC	WG1887734-4	Tetrahydrofuran	LCSD	64	70-130	06	potential low bias
MCP Volatile Organics by EPA 5035 Low - Westborough Lab								
8260D	Batch QC	WG1886062-3	Chloromethane	LCS	67	70-130	01-05,08-11,13	potential low bias
8260D	Batch QC	WG1886062-3	1,1-Dichloroethene	LCS	68	70-130	01-05,08-11,13	potential low bias
8260D	Batch QC	WG1886062-3	Dichlorodifluoromethane	LCS	62	70-130	01-05,08-11,13	potential low bias
8260D	Batch QC	WG1886062-3	Acetone	LCS	64	70-130	01-05,08-11,13	potential low bias
8260D	Batch QC	WG1886062-3	Carbon disulfide	LCS	68	70-130	01-05,08-11,13	potential low bias
8260D	Batch QC	WG1886062-3	Tetrahydrofuran	LCS	65	70-130	01-05,08-11,13	potential low bias
8260D	Batch QC	WG1886062-4	Chloromethane	LCSD	67	70-130	01-05,08-11,13	potential low bias
8260D	Batch QC	WG1886062-4	1,1-Dichloroethene	LCSD	68	70-130	01-05,08-11,13	potential low bias
8260D	Batch QC	WG1886062-4	Dichlorodifluoromethane	LCSD	62	70-130	01-05,08-11,13	potential low bias
8260D	Batch QC	WG1886062-4	Acetone	LCSD	64	70-130	01-05,08-11,13	potential low bias
8260D	Batch QC	WG1886062-4	Carbon disulfide	LCSD	68	70-130	01-05,08-11,13	potential low bias
8260D	Batch QC	WG1886062-4	Tetrahydrofuran	LCSD	64	70-130	01-05,08-11,13	potential low bias

ORGANICS

VOLATILES

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-01
 Client ID: 50TUFT-B101(0-1)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 08:30
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 141,8260D
 Analytical Date: 02/15/24 15:23
 Analyst: MAG
 Percent Solids: 80%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	3.7	--	1
1,1-Dichloroethane	ND		ug/kg	0.74	--	1
Chloroform	ND		ug/kg	1.1	--	1
Carbon tetrachloride	ND		ug/kg	0.74	--	1
1,2-Dichloropropane	ND		ug/kg	0.74	--	1
Dibromochloromethane	ND		ug/kg	0.74	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.74	--	1
Tetrachloroethene	2.3		ug/kg	0.37	--	1
Chlorobenzene	ND		ug/kg	0.37	--	1
Trichlorofluoromethane	ND		ug/kg	2.9	--	1
1,2-Dichloroethane	ND		ug/kg	0.74	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.37	--	1
Bromodichloromethane	ND		ug/kg	0.37	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.74	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.37	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.37	--	1
1,1-Dichloropropene	ND		ug/kg	0.37	--	1
Bromoform	ND		ug/kg	2.9	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.37	--	1
Benzene	ND		ug/kg	0.37	--	1
Toluene	ND		ug/kg	0.74	--	1
Ethylbenzene	ND		ug/kg	0.74	--	1
Chloromethane	ND		ug/kg	2.9	--	1
Bromomethane	ND		ug/kg	1.5	--	1
Vinyl chloride	ND		ug/kg	0.74	--	1
Chloroethane	ND		ug/kg	1.5	--	1
1,1-Dichloroethene	ND		ug/kg	0.74	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.1	--	1

Project Name: TUFTS STREET

Lab Number: L2408101

Project Number: 045163

Report Date: 02/21/24

SAMPLE RESULTS

Lab ID: L2408101-01
 Client ID: 50TUFT-B101(0-1)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 08:30
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.37	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.5	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.5	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.5	--	1
Methyl tert butyl ether	ND		ug/kg	1.5	--	1
p/m-Xylene	ND		ug/kg	1.5	--	1
o-Xylene	ND		ug/kg	0.74	--	1
Xylenes, Total	ND		ug/kg	0.74	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.74	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.74	--	1
Dibromomethane	ND		ug/kg	1.5	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.5	--	1
Styrene	ND		ug/kg	0.74	--	1
Dichlorodifluoromethane	ND		ug/kg	7.4	--	1
Acetone	ND		ug/kg	18	--	1
Carbon disulfide	ND		ug/kg	7.4	--	1
Methyl ethyl ketone	ND		ug/kg	7.4	--	1
Methyl isobutyl ketone	ND		ug/kg	7.4	--	1
2-Hexanone	ND		ug/kg	7.4	--	1
Bromochloromethane	ND		ug/kg	1.5	--	1
Tetrahydrofuran	ND		ug/kg	2.9	--	1
2,2-Dichloropropane	ND		ug/kg	1.5	--	1
1,2-Dibromoethane	ND		ug/kg	0.74	--	1
1,3-Dichloropropane	ND		ug/kg	1.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.37	--	1
Bromobenzene	ND		ug/kg	1.5	--	1
n-Butylbenzene	ND		ug/kg	0.74	--	1
sec-Butylbenzene	ND		ug/kg	0.74	--	1
tert-Butylbenzene	ND		ug/kg	1.5	--	1
o-Chlorotoluene	ND		ug/kg	1.5	--	1
p-Chlorotoluene	ND		ug/kg	1.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.2	--	1
Hexachlorobutadiene	ND		ug/kg	2.9	--	1
Isopropylbenzene	ND		ug/kg	0.74	--	1
p-Isopropyltoluene	ND		ug/kg	0.74	--	1
Naphthalene	ND		ug/kg	2.9	--	1
n-Propylbenzene	ND		ug/kg	0.74	--	1

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-01
 Client ID: 50TUFT-B101(0-1)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 08:30
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	1.5	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.5	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.5	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.5	--	1
Diethyl ether	ND		ug/kg	1.5	--	1
Diisopropyl Ether	ND		ug/kg	1.5	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.5	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.5	--	1
1,4-Dioxane	ND		ug/kg	59	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	95		70-130

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-02
 Client ID: 50TUFT-B101(1-3)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 08:31
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 141,8260D
 Analytical Date: 02/15/24 15:54
 Analyst: MAG
 Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	3.3	--	1
1,1-Dichloroethane	ND		ug/kg	0.66	--	1
Chloroform	ND		ug/kg	0.99	--	1
Carbon tetrachloride	ND		ug/kg	0.66	--	1
1,2-Dichloropropane	ND		ug/kg	0.66	--	1
Dibromochloromethane	ND		ug/kg	0.66	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.66	--	1
Tetrachloroethene	ND		ug/kg	0.33	--	1
Chlorobenzene	ND		ug/kg	0.33	--	1
Trichlorofluoromethane	ND		ug/kg	2.6	--	1
1,2-Dichloroethane	ND		ug/kg	0.66	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.33	--	1
Bromodichloromethane	ND		ug/kg	0.33	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.66	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.33	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.33	--	1
1,1-Dichloropropene	ND		ug/kg	0.33	--	1
Bromoform	ND		ug/kg	2.6	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.33	--	1
Benzene	ND		ug/kg	0.33	--	1
Toluene	ND		ug/kg	0.66	--	1
Ethylbenzene	ND		ug/kg	0.66	--	1
Chloromethane	ND		ug/kg	2.6	--	1
Bromomethane	ND		ug/kg	1.3	--	1
Vinyl chloride	ND		ug/kg	0.66	--	1
Chloroethane	ND		ug/kg	1.3	--	1
1,1-Dichloroethene	ND		ug/kg	0.66	--	1
trans-1,2-Dichloroethene	ND		ug/kg	0.99	--	1

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-02
 Client ID: 50TUFT-B101(1-3)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 08:31
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.33	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.3	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.3	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.3	--	1
Methyl tert butyl ether	ND		ug/kg	1.3	--	1
p/m-Xylene	ND		ug/kg	1.3	--	1
o-Xylene	ND		ug/kg	0.66	--	1
Xylenes, Total	ND		ug/kg	0.66	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.66	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.66	--	1
Dibromomethane	ND		ug/kg	1.3	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.3	--	1
Styrene	ND		ug/kg	0.66	--	1
Dichlorodifluoromethane	ND		ug/kg	6.6	--	1
Acetone	ND		ug/kg	16	--	1
Carbon disulfide	ND		ug/kg	6.6	--	1
Methyl ethyl ketone	ND		ug/kg	6.6	--	1
Methyl isobutyl ketone	ND		ug/kg	6.6	--	1
2-Hexanone	ND		ug/kg	6.6	--	1
Bromochloromethane	ND		ug/kg	1.3	--	1
Tetrahydrofuran	ND		ug/kg	2.6	--	1
2,2-Dichloropropane	ND		ug/kg	1.3	--	1
1,2-Dibromoethane	ND		ug/kg	0.66	--	1
1,3-Dichloropropane	ND		ug/kg	1.3	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.33	--	1
Bromobenzene	ND		ug/kg	1.3	--	1
n-Butylbenzene	ND		ug/kg	0.66	--	1
sec-Butylbenzene	ND		ug/kg	0.66	--	1
tert-Butylbenzene	ND		ug/kg	1.3	--	1
o-Chlorotoluene	ND		ug/kg	1.3	--	1
p-Chlorotoluene	ND		ug/kg	1.3	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.0	--	1
Hexachlorobutadiene	ND		ug/kg	2.6	--	1
Isopropylbenzene	ND		ug/kg	0.66	--	1
p-Isopropyltoluene	ND		ug/kg	0.66	--	1
Naphthalene	ND		ug/kg	2.6	--	1
n-Propylbenzene	ND		ug/kg	0.66	--	1

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-02
 Client ID: 50TUFT-B101(1-3)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 08:31
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	1.3	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.3	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.3	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.3	--	1
Diethyl ether	ND		ug/kg	1.3	--	1
Diisopropyl Ether	ND		ug/kg	1.3	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.3	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.3	--	1
1,4-Dioxane	ND		ug/kg	53	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	94		70-130

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-03
 Client ID: 50TUFT-B101(3-5)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 08:32
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 141,8260D
 Analytical Date: 02/15/24 16:24
 Analyst: MAG
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	2.6	--	1
1,1-Dichloroethane	ND		ug/kg	0.51	--	1
Chloroform	ND		ug/kg	0.77	--	1
Carbon tetrachloride	ND		ug/kg	0.51	--	1
1,2-Dichloropropane	ND		ug/kg	0.51	--	1
Dibromochloromethane	ND		ug/kg	0.51	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.51	--	1
Tetrachloroethene	15		ug/kg	0.26	--	1
Chlorobenzene	ND		ug/kg	0.26	--	1
Trichlorofluoromethane	ND		ug/kg	2.0	--	1
1,2-Dichloroethane	ND		ug/kg	0.51	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.26	--	1
Bromodichloromethane	ND		ug/kg	0.26	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.51	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.26	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.26	--	1
1,1-Dichloropropene	ND		ug/kg	0.26	--	1
Bromoform	ND		ug/kg	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.26	--	1
Benzene	ND		ug/kg	0.26	--	1
Toluene	ND		ug/kg	0.51	--	1
Ethylbenzene	ND		ug/kg	0.51	--	1
Chloromethane	ND		ug/kg	2.0	--	1
Bromomethane	ND		ug/kg	1.0	--	1
Vinyl chloride	ND		ug/kg	0.51	--	1
Chloroethane	ND		ug/kg	1.0	--	1
1,1-Dichloroethene	ND		ug/kg	0.51	--	1
trans-1,2-Dichloroethene	ND		ug/kg	0.77	--	1

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-03
 Client ID: 50TUFT-B101(3-5)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 08:32
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.26	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.0	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.0	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.0	--	1
Methyl tert butyl ether	ND		ug/kg	1.0	--	1
p/m-Xylene	ND		ug/kg	1.0	--	1
o-Xylene	ND		ug/kg	0.51	--	1
Xylenes, Total	ND		ug/kg	0.51	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.51	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.51	--	1
Dibromomethane	ND		ug/kg	1.0	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.0	--	1
Styrene	ND		ug/kg	0.51	--	1
Dichlorodifluoromethane	ND		ug/kg	5.1	--	1
Acetone	ND		ug/kg	13	--	1
Carbon disulfide	ND		ug/kg	5.1	--	1
Methyl ethyl ketone	ND		ug/kg	5.1	--	1
Methyl isobutyl ketone	ND		ug/kg	5.1	--	1
2-Hexanone	ND		ug/kg	5.1	--	1
Bromochloromethane	ND		ug/kg	1.0	--	1
Tetrahydrofuran	ND		ug/kg	2.0	--	1
2,2-Dichloropropane	ND		ug/kg	1.0	--	1
1,2-Dibromoethane	ND		ug/kg	0.51	--	1
1,3-Dichloropropane	ND		ug/kg	1.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.26	--	1
Bromobenzene	ND		ug/kg	1.0	--	1
n-Butylbenzene	ND		ug/kg	0.51	--	1
sec-Butylbenzene	ND		ug/kg	0.51	--	1
tert-Butylbenzene	ND		ug/kg	1.0	--	1
o-Chlorotoluene	ND		ug/kg	1.0	--	1
p-Chlorotoluene	ND		ug/kg	1.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	1.5	--	1
Hexachlorobutadiene	ND		ug/kg	2.0	--	1
Isopropylbenzene	ND		ug/kg	0.51	--	1
p-Isopropyltoluene	ND		ug/kg	0.51	--	1
Naphthalene	ND		ug/kg	2.0	--	1
n-Propylbenzene	ND		ug/kg	0.51	--	1

Project Name: TUFTS STREET

Lab Number: L2408101

Project Number: 045163

Report Date: 02/21/24

SAMPLE RESULTS

Lab ID: L2408101-03
 Client ID: 50TUFT-B101(3-5)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 08:32
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	1.0	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.0	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.0	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.0	--	1
Diethyl ether	ND		ug/kg	1.0	--	1
Diisopropyl Ether	ND		ug/kg	1.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.0	--	1
1,4-Dioxane	ND		ug/kg	41	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	93		70-130

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-04
 Client ID: 50TUFT-B102(0-1)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 09:00
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 141,8260D
 Analytical Date: 02/15/24 16:54
 Analyst: MAG
 Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	3.2	--	1
1,1-Dichloroethane	ND		ug/kg	0.64	--	1
Chloroform	ND		ug/kg	0.95	--	1
Carbon tetrachloride	ND		ug/kg	0.64	--	1
1,2-Dichloropropane	ND		ug/kg	0.64	--	1
Dibromochloromethane	ND		ug/kg	0.64	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.64	--	1
Tetrachloroethene	0.48		ug/kg	0.32	--	1
Chlorobenzene	ND		ug/kg	0.32	--	1
Trichlorofluoromethane	ND		ug/kg	2.5	--	1
1,2-Dichloroethane	ND		ug/kg	0.64	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.32	--	1
Bromodichloromethane	ND		ug/kg	0.32	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.64	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.32	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.32	--	1
1,1-Dichloropropene	ND		ug/kg	0.32	--	1
Bromoform	ND		ug/kg	2.5	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.32	--	1
Benzene	ND		ug/kg	0.32	--	1
Toluene	ND		ug/kg	0.64	--	1
Ethylbenzene	ND		ug/kg	0.64	--	1
Chloromethane	ND		ug/kg	2.5	--	1
Bromomethane	ND		ug/kg	1.3	--	1
Vinyl chloride	ND		ug/kg	0.64	--	1
Chloroethane	ND		ug/kg	1.3	--	1
1,1-Dichloroethene	ND		ug/kg	0.64	--	1
trans-1,2-Dichloroethene	ND		ug/kg	0.95	--	1

Project Name: TUFTS STREET

Lab Number: L2408101

Project Number: 045163

Report Date: 02/21/24

SAMPLE RESULTS

Lab ID: L2408101-04
 Client ID: 50TUFT-B102(0-1)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 09:00
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.32	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.3	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.3	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.3	--	1
Methyl tert butyl ether	ND		ug/kg	1.3	--	1
p/m-Xylene	ND		ug/kg	1.3	--	1
o-Xylene	ND		ug/kg	0.64	--	1
Xylenes, Total	ND		ug/kg	0.64	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.64	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.64	--	1
Dibromomethane	ND		ug/kg	1.3	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.3	--	1
Styrene	ND		ug/kg	0.64	--	1
Dichlorodifluoromethane	ND		ug/kg	6.4	--	1
Acetone	ND		ug/kg	16	--	1
Carbon disulfide	ND		ug/kg	6.4	--	1
Methyl ethyl ketone	ND		ug/kg	6.4	--	1
Methyl isobutyl ketone	ND		ug/kg	6.4	--	1
2-Hexanone	ND		ug/kg	6.4	--	1
Bromochloromethane	ND		ug/kg	1.3	--	1
Tetrahydrofuran	ND		ug/kg	2.5	--	1
2,2-Dichloropropane	ND		ug/kg	1.3	--	1
1,2-Dibromoethane	ND		ug/kg	0.64	--	1
1,3-Dichloropropane	ND		ug/kg	1.3	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.32	--	1
Bromobenzene	ND		ug/kg	1.3	--	1
n-Butylbenzene	ND		ug/kg	0.64	--	1
sec-Butylbenzene	ND		ug/kg	0.64	--	1
tert-Butylbenzene	ND		ug/kg	1.3	--	1
o-Chlorotoluene	ND		ug/kg	1.3	--	1
p-Chlorotoluene	ND		ug/kg	1.3	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	1.9	--	1
Hexachlorobutadiene	ND		ug/kg	2.5	--	1
Isopropylbenzene	ND		ug/kg	0.64	--	1
p-Isopropyltoluene	ND		ug/kg	0.64	--	1
Naphthalene	ND		ug/kg	2.5	--	1
n-Propylbenzene	ND		ug/kg	0.64	--	1

Project Name: TUFTS STREET

Lab Number: L2408101

Project Number: 045163

Report Date: 02/21/24

SAMPLE RESULTS

Lab ID: L2408101-04
 Client ID: 50TUFT-B102(0-1)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 09:00
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	1.3	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.3	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.3	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.3	--	1
Diethyl ether	ND		ug/kg	1.3	--	1
Diisopropyl Ether	ND		ug/kg	1.3	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.3	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.3	--	1
1,4-Dioxane	ND		ug/kg	51	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	93		70-130

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-05
 Client ID: 50TUFT-B102(1-3)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 09:01
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 141,8260D
 Analytical Date: 02/15/24 17:25
 Analyst: MAG
 Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	2.9	--	1
1,1-Dichloroethane	ND		ug/kg	0.58	--	1
Chloroform	ND		ug/kg	0.88	--	1
Carbon tetrachloride	ND		ug/kg	0.58	--	1
1,2-Dichloropropane	ND		ug/kg	0.58	--	1
Dibromochloromethane	ND		ug/kg	0.58	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.58	--	1
Tetrachloroethene	1.0		ug/kg	0.29	--	1
Chlorobenzene	ND		ug/kg	0.29	--	1
Trichlorofluoromethane	ND		ug/kg	2.3	--	1
1,2-Dichloroethane	ND		ug/kg	0.58	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.29	--	1
Bromodichloromethane	ND		ug/kg	0.29	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.58	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.29	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.29	--	1
1,1-Dichloropropene	ND		ug/kg	0.29	--	1
Bromoform	ND		ug/kg	2.3	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.29	--	1
Benzene	ND		ug/kg	0.29	--	1
Toluene	ND		ug/kg	0.58	--	1
Ethylbenzene	ND		ug/kg	0.58	--	1
Chloromethane	ND		ug/kg	2.3	--	1
Bromomethane	ND		ug/kg	1.2	--	1
Vinyl chloride	ND		ug/kg	0.58	--	1
Chloroethane	ND		ug/kg	1.2	--	1
1,1-Dichloroethene	ND		ug/kg	0.58	--	1
trans-1,2-Dichloroethene	ND		ug/kg	0.88	--	1

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-05
 Client ID: 50TUFT-B102(1-3)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 09:01
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	0.37		ug/kg	0.29	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.2	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.2	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.2	--	1
Methyl tert butyl ether	ND		ug/kg	1.2	--	1
p/m-Xylene	ND		ug/kg	1.2	--	1
o-Xylene	ND		ug/kg	0.58	--	1
Xylenes, Total	ND		ug/kg	0.58	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.58	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.58	--	1
Dibromomethane	ND		ug/kg	1.2	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.2	--	1
Styrene	ND		ug/kg	0.58	--	1
Dichlorodifluoromethane	ND		ug/kg	5.8	--	1
Acetone	ND		ug/kg	14	--	1
Carbon disulfide	ND		ug/kg	5.8	--	1
Methyl ethyl ketone	ND		ug/kg	5.8	--	1
Methyl isobutyl ketone	ND		ug/kg	5.8	--	1
2-Hexanone	ND		ug/kg	5.8	--	1
Bromochloromethane	ND		ug/kg	1.2	--	1
Tetrahydrofuran	ND		ug/kg	2.3	--	1
2,2-Dichloropropane	ND		ug/kg	1.2	--	1
1,2-Dibromoethane	ND		ug/kg	0.58	--	1
1,3-Dichloropropane	ND		ug/kg	1.2	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.29	--	1
Bromobenzene	ND		ug/kg	1.2	--	1
n-Butylbenzene	ND		ug/kg	0.58	--	1
sec-Butylbenzene	ND		ug/kg	0.58	--	1
tert-Butylbenzene	ND		ug/kg	1.2	--	1
o-Chlorotoluene	ND		ug/kg	1.2	--	1
p-Chlorotoluene	ND		ug/kg	1.2	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	1.8	--	1
Hexachlorobutadiene	ND		ug/kg	2.3	--	1
Isopropylbenzene	ND		ug/kg	0.58	--	1
p-Isopropyltoluene	ND		ug/kg	0.58	--	1
Naphthalene	ND		ug/kg	2.3	--	1
n-Propylbenzene	ND		ug/kg	0.58	--	1

Project Name: TUFTS STREET

Lab Number: L2408101

Project Number: 045163

Report Date: 02/21/24

SAMPLE RESULTS

Lab ID: L2408101-05
 Client ID: 50TUFT-B102(1-3)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 09:01
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	1.2	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.2	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.2	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.2	--	1
Diethyl ether	ND		ug/kg	1.2	--	1
Diisopropyl Ether	ND		ug/kg	1.2	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.2	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.2	--	1
1,4-Dioxane	ND		ug/kg	47	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	93		70-130

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-06
 Client ID: 50TUFT-B103(0-1)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 09:30
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 141,8260D
 Analytical Date: 02/20/24 14:19
 Analyst: MAG
 Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	230	--	1
1,1-Dichloroethane	ND		ug/kg	46	--	1
Chloroform	ND		ug/kg	68	--	1
Carbon tetrachloride	ND		ug/kg	46	--	1
1,2-Dichloropropane	ND		ug/kg	46	--	1
Dibromochloromethane	ND		ug/kg	46	--	1
1,1,2-Trichloroethane	ND		ug/kg	46	--	1
Tetrachloroethene	92000	E	ug/kg	23	--	1
Chlorobenzene	ND		ug/kg	23	--	1
Trichlorofluoromethane	ND		ug/kg	180	--	1
1,2-Dichloroethane	ND		ug/kg	46	--	1
1,1,1-Trichloroethane	ND		ug/kg	23	--	1
Bromodichloromethane	ND		ug/kg	23	--	1
trans-1,3-Dichloropropene	ND		ug/kg	46	--	1
cis-1,3-Dichloropropene	ND		ug/kg	23	--	1
1,3-Dichloropropene, Total	ND		ug/kg	23	--	1
1,1-Dichloropropene	ND		ug/kg	23	--	1
Bromoform	ND		ug/kg	180	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	23	--	1
Benzene	ND		ug/kg	23	--	1
Toluene	ND		ug/kg	46	--	1
Ethylbenzene	ND		ug/kg	46	--	1
Chloromethane	ND		ug/kg	180	--	1
Bromomethane	ND		ug/kg	91	--	1
Vinyl chloride	ND		ug/kg	46	--	1
Chloroethane	ND		ug/kg	91	--	1
1,1-Dichloroethene	ND		ug/kg	46	--	1
trans-1,2-Dichloroethene	ND		ug/kg	68	--	1

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-06
 Client ID: 50TUFT-B103(0-1)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 09:30
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	240		ug/kg	23	--	1
1,2-Dichlorobenzene	ND		ug/kg	91	--	1
1,3-Dichlorobenzene	ND		ug/kg	91	--	1
1,4-Dichlorobenzene	ND		ug/kg	91	--	1
Methyl tert butyl ether	ND		ug/kg	91	--	1
p/m-Xylene	ND		ug/kg	91	--	1
o-Xylene	ND		ug/kg	46	--	1
Xylenes, Total	ND		ug/kg	46	--	1
cis-1,2-Dichloroethene	94		ug/kg	46	--	1
1,2-Dichloroethene, Total	94		ug/kg	46	--	1
Dibromomethane	ND		ug/kg	91	--	1
1,2,3-Trichloropropane	ND		ug/kg	91	--	1
Styrene	ND		ug/kg	46	--	1
Dichlorodifluoromethane	ND		ug/kg	460	--	1
Acetone	ND		ug/kg	460	--	1
Carbon disulfide	ND		ug/kg	460	--	1
Methyl ethyl ketone	ND		ug/kg	460	--	1
Methyl isobutyl ketone	ND		ug/kg	460	--	1
2-Hexanone	ND		ug/kg	460	--	1
Bromochloromethane	ND		ug/kg	91	--	1
Tetrahydrofuran	ND		ug/kg	180	--	1
2,2-Dichloropropane	ND		ug/kg	91	--	1
1,2-Dibromoethane	ND		ug/kg	46	--	1
1,3-Dichloropropane	ND		ug/kg	91	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	23	--	1
Bromobenzene	ND		ug/kg	91	--	1
n-Butylbenzene	ND		ug/kg	46	--	1
sec-Butylbenzene	ND		ug/kg	46	--	1
tert-Butylbenzene	ND		ug/kg	91	--	1
o-Chlorotoluene	ND		ug/kg	91	--	1
p-Chlorotoluene	ND		ug/kg	91	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	140	--	1
Hexachlorobutadiene	ND		ug/kg	180	--	1
Isopropylbenzene	ND		ug/kg	46	--	1
p-Isopropyltoluene	ND		ug/kg	46	--	1
Naphthalene	ND		ug/kg	180	--	1
n-Propylbenzene	ND		ug/kg	46	--	1

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-06
 Client ID: 50TUFT-B103(0-1)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 09:30
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	91	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	91	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	91	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	91	--	1
Diethyl ether	ND		ug/kg	91	--	1
Diisopropyl Ether	ND		ug/kg	91	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	91	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	91	--	1
1,4-Dioxane	ND		ug/kg	3600	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	85		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	91		70-130

Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

SAMPLE RESULTS

Lab ID: L2408101-06 D
Client ID: 50TUFT-B103(0-1)
Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 09:30
Date Received: 02/14/24
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 141,8260D
Analytical Date: 02/21/24 12:25
Analyst: AJK
Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics by EPA 5035 High - Westborough Lab

Tetrachloroethene	100000		ug/kg	230	--	10
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	88		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	86		70-130
Dibromofluoromethane	95		70-130

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-07
 Client ID: 50TUFT-B103(1-3)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 09:31
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 141,8260D
 Analytical Date: 02/15/24 20:26
 Analyst: MAG
 Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	310	--	1
1,1-Dichloroethane	ND		ug/kg	61	--	1
Chloroform	ND		ug/kg	92	--	1
Carbon tetrachloride	ND		ug/kg	61	--	1
1,2-Dichloropropane	ND		ug/kg	61	--	1
Dibromochloromethane	ND		ug/kg	61	--	1
1,1,2-Trichloroethane	ND		ug/kg	61	--	1
Tetrachloroethene	2800		ug/kg	31	--	1
Chlorobenzene	ND		ug/kg	31	--	1
Trichlorofluoromethane	ND		ug/kg	240	--	1
1,2-Dichloroethane	ND		ug/kg	61	--	1
1,1,1-Trichloroethane	ND		ug/kg	31	--	1
Bromodichloromethane	ND		ug/kg	31	--	1
trans-1,3-Dichloropropene	ND		ug/kg	61	--	1
cis-1,3-Dichloropropene	ND		ug/kg	31	--	1
1,3-Dichloropropene, Total	ND		ug/kg	31	--	1
1,1-Dichloropropene	ND		ug/kg	31	--	1
Bromoform	ND		ug/kg	240	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	31	--	1
Benzene	ND		ug/kg	31	--	1
Toluene	ND		ug/kg	61	--	1
Ethylbenzene	ND		ug/kg	61	--	1
Chloromethane	ND		ug/kg	240	--	1
Bromomethane	ND		ug/kg	120	--	1
Vinyl chloride	ND		ug/kg	61	--	1
Chloroethane	ND		ug/kg	120	--	1
1,1-Dichloroethene	ND		ug/kg	61	--	1
trans-1,2-Dichloroethene	ND		ug/kg	92	--	1

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-07
 Client ID: 50TUFT-B103(1-3)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 09:31
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	31	--	1
1,2-Dichlorobenzene	ND		ug/kg	120	--	1
1,3-Dichlorobenzene	ND		ug/kg	120	--	1
1,4-Dichlorobenzene	ND		ug/kg	120	--	1
Methyl tert butyl ether	ND		ug/kg	120	--	1
p/m-Xylene	ND		ug/kg	120	--	1
o-Xylene	ND		ug/kg	61	--	1
Xylenes, Total	ND		ug/kg	61	--	1
cis-1,2-Dichloroethene	ND		ug/kg	61	--	1
1,2-Dichloroethene, Total	ND		ug/kg	61	--	1
Dibromomethane	ND		ug/kg	120	--	1
1,2,3-Trichloropropane	ND		ug/kg	120	--	1
Styrene	ND		ug/kg	61	--	1
Dichlorodifluoromethane	ND		ug/kg	610	--	1
Acetone	ND		ug/kg	610	--	1
Carbon disulfide	ND		ug/kg	610	--	1
Methyl ethyl ketone	ND		ug/kg	610	--	1
Methyl isobutyl ketone	ND		ug/kg	610	--	1
2-Hexanone	ND		ug/kg	610	--	1
Bromochloromethane	ND		ug/kg	120	--	1
Tetrahydrofuran	ND		ug/kg	240	--	1
2,2-Dichloropropane	ND		ug/kg	120	--	1
1,2-Dibromoethane	ND		ug/kg	61	--	1
1,3-Dichloropropane	ND		ug/kg	120	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	31	--	1
Bromobenzene	ND		ug/kg	120	--	1
n-Butylbenzene	ND		ug/kg	61	--	1
sec-Butylbenzene	ND		ug/kg	61	--	1
tert-Butylbenzene	ND		ug/kg	120	--	1
o-Chlorotoluene	ND		ug/kg	120	--	1
p-Chlorotoluene	ND		ug/kg	120	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	180	--	1
Hexachlorobutadiene	ND		ug/kg	240	--	1
Isopropylbenzene	ND		ug/kg	61	--	1
p-Isopropyltoluene	ND		ug/kg	61	--	1
Naphthalene	ND		ug/kg	240	--	1
n-Propylbenzene	ND		ug/kg	61	--	1

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-07
 Client ID: 50TUFT-B103(1-3)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 09:31
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	120	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	120	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	120	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	120	--	1
Diethyl ether	ND		ug/kg	120	--	1
Diisopropyl Ether	ND		ug/kg	120	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	120	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	120	--	1
1,4-Dioxane	ND		ug/kg	4900	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	94		70-130

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-08
 Client ID: 50TUFT-B103(3-5)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 09:32
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 141,8260D
 Analytical Date: 02/15/24 17:55
 Analyst: MAG
 Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	3.2	--	1
1,1-Dichloroethane	ND		ug/kg	0.63	--	1
Chloroform	ND		ug/kg	0.95	--	1
Carbon tetrachloride	ND		ug/kg	0.63	--	1
1,2-Dichloropropane	ND		ug/kg	0.63	--	1
Dibromochloromethane	ND		ug/kg	0.63	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.63	--	1
Tetrachloroethene	0.52		ug/kg	0.32	--	1
Chlorobenzene	ND		ug/kg	0.32	--	1
Trichlorofluoromethane	ND		ug/kg	2.5	--	1
1,2-Dichloroethane	ND		ug/kg	0.63	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.32	--	1
Bromodichloromethane	ND		ug/kg	0.32	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.63	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.32	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.32	--	1
1,1-Dichloropropene	ND		ug/kg	0.32	--	1
Bromoform	ND		ug/kg	2.5	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.32	--	1
Benzene	ND		ug/kg	0.32	--	1
Toluene	ND		ug/kg	0.63	--	1
Ethylbenzene	ND		ug/kg	0.63	--	1
Chloromethane	ND		ug/kg	2.5	--	1
Bromomethane	ND		ug/kg	1.3	--	1
Vinyl chloride	ND		ug/kg	0.63	--	1
Chloroethane	ND		ug/kg	1.3	--	1
1,1-Dichloroethene	ND		ug/kg	0.63	--	1
trans-1,2-Dichloroethene	ND		ug/kg	0.95	--	1

Project Name: TUFTS STREET

Lab Number: L2408101

Project Number: 045163

Report Date: 02/21/24

SAMPLE RESULTS

Lab ID: L2408101-08
 Client ID: 50TUFT-B103(3-5)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 09:32
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.32	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.3	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.3	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.3	--	1
Methyl tert butyl ether	ND		ug/kg	1.3	--	1
p/m-Xylene	ND		ug/kg	1.3	--	1
o-Xylene	ND		ug/kg	0.63	--	1
Xylenes, Total	ND		ug/kg	0.63	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.63	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.63	--	1
Dibromomethane	ND		ug/kg	1.3	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.3	--	1
Styrene	ND		ug/kg	0.63	--	1
Dichlorodifluoromethane	ND		ug/kg	6.3	--	1
Acetone	ND		ug/kg	16	--	1
Carbon disulfide	ND		ug/kg	6.3	--	1
Methyl ethyl ketone	ND		ug/kg	6.3	--	1
Methyl isobutyl ketone	ND		ug/kg	6.3	--	1
2-Hexanone	ND		ug/kg	6.3	--	1
Bromochloromethane	ND		ug/kg	1.3	--	1
Tetrahydrofuran	ND		ug/kg	2.5	--	1
2,2-Dichloropropane	ND		ug/kg	1.3	--	1
1,2-Dibromoethane	ND		ug/kg	0.63	--	1
1,3-Dichloropropane	ND		ug/kg	1.3	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.32	--	1
Bromobenzene	ND		ug/kg	1.3	--	1
n-Butylbenzene	ND		ug/kg	0.63	--	1
sec-Butylbenzene	ND		ug/kg	0.63	--	1
tert-Butylbenzene	ND		ug/kg	1.3	--	1
o-Chlorotoluene	ND		ug/kg	1.3	--	1
p-Chlorotoluene	ND		ug/kg	1.3	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	1.9	--	1
Hexachlorobutadiene	ND		ug/kg	2.5	--	1
Isopropylbenzene	ND		ug/kg	0.63	--	1
p-Isopropyltoluene	ND		ug/kg	0.63	--	1
Naphthalene	ND		ug/kg	2.5	--	1
n-Propylbenzene	ND		ug/kg	0.63	--	1

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-08
 Client ID: 50TUFT-B103(3-5)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 09:32
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	1.3	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.3	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.3	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.3	--	1
Diethyl ether	ND		ug/kg	1.3	--	1
Diisopropyl Ether	ND		ug/kg	1.3	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.3	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.3	--	1
1,4-Dioxane	ND		ug/kg	50	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	95		70-130

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-09
 Client ID: 50TUFT-B104(0-1)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 10:00
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 141,8260D
 Analytical Date: 02/15/24 18:25
 Analyst: MAG
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	2.9	--	1
1,1-Dichloroethane	ND		ug/kg	0.57	--	1
Chloroform	ND		ug/kg	0.86	--	1
Carbon tetrachloride	ND		ug/kg	0.57	--	1
1,2-Dichloropropane	ND		ug/kg	0.57	--	1
Dibromochloromethane	ND		ug/kg	0.57	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.57	--	1
Tetrachloroethene	23		ug/kg	0.29	--	1
Chlorobenzene	ND		ug/kg	0.29	--	1
Trichlorofluoromethane	ND		ug/kg	2.3	--	1
1,2-Dichloroethane	ND		ug/kg	0.57	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.29	--	1
Bromodichloromethane	ND		ug/kg	0.29	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.57	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.29	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.29	--	1
1,1-Dichloropropene	ND		ug/kg	0.29	--	1
Bromoform	ND		ug/kg	2.3	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.29	--	1
Benzene	ND		ug/kg	0.29	--	1
Toluene	ND		ug/kg	0.57	--	1
Ethylbenzene	ND		ug/kg	0.57	--	1
Chloromethane	ND		ug/kg	2.3	--	1
Bromomethane	ND		ug/kg	1.1	--	1
Vinyl chloride	ND		ug/kg	0.57	--	1
Chloroethane	ND		ug/kg	1.1	--	1
1,1-Dichloroethene	ND		ug/kg	0.57	--	1
trans-1,2-Dichloroethene	ND		ug/kg	0.86	--	1

Project Name: TUFTS STREET

Lab Number: L2408101

Project Number: 045163

Report Date: 02/21/24

SAMPLE RESULTS

Lab ID: L2408101-09
 Client ID: 50TUFT-B104(0-1)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 10:00
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.29	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.1	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.1	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.1	--	1
Methyl tert butyl ether	ND		ug/kg	1.1	--	1
p/m-Xylene	ND		ug/kg	1.1	--	1
o-Xylene	ND		ug/kg	0.57	--	1
Xylenes, Total	ND		ug/kg	0.57	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.57	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.57	--	1
Dibromomethane	ND		ug/kg	1.1	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.1	--	1
Styrene	ND		ug/kg	0.57	--	1
Dichlorodifluoromethane	ND		ug/kg	5.7	--	1
Acetone	ND		ug/kg	14	--	1
Carbon disulfide	ND		ug/kg	5.7	--	1
Methyl ethyl ketone	ND		ug/kg	5.7	--	1
Methyl isobutyl ketone	ND		ug/kg	5.7	--	1
2-Hexanone	ND		ug/kg	5.7	--	1
Bromochloromethane	ND		ug/kg	1.1	--	1
Tetrahydrofuran	ND		ug/kg	2.3	--	1
2,2-Dichloropropane	ND		ug/kg	1.1	--	1
1,2-Dibromoethane	ND		ug/kg	0.57	--	1
1,3-Dichloropropane	ND		ug/kg	1.1	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.29	--	1
Bromobenzene	ND		ug/kg	1.1	--	1
n-Butylbenzene	ND		ug/kg	0.57	--	1
sec-Butylbenzene	ND		ug/kg	0.57	--	1
tert-Butylbenzene	ND		ug/kg	1.1	--	1
o-Chlorotoluene	ND		ug/kg	1.1	--	1
p-Chlorotoluene	ND		ug/kg	1.1	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	1.7	--	1
Hexachlorobutadiene	ND		ug/kg	2.3	--	1
Isopropylbenzene	ND		ug/kg	0.57	--	1
p-Isopropyltoluene	ND		ug/kg	0.57	--	1
Naphthalene	ND		ug/kg	2.3	--	1
n-Propylbenzene	ND		ug/kg	0.57	--	1

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-09
 Client ID: 50TUFT-B104(0-1)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 10:00
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	1.1	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.1	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.1	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.1	--	1
Diethyl ether	ND		ug/kg	1.1	--	1
Diisopropyl Ether	ND		ug/kg	1.1	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.1	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.1	--	1
1,4-Dioxane	ND		ug/kg	46	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	99		70-130

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-10
 Client ID: 50TUFT-B104(1-3)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 10:01
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 141,8260D
 Analytical Date: 02/15/24 18:56
 Analyst: MAG
 Percent Solids: 80%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	3.3	--	1
1,1-Dichloroethane	ND		ug/kg	0.67	--	1
Chloroform	ND		ug/kg	1.0	--	1
Carbon tetrachloride	ND		ug/kg	0.67	--	1
1,2-Dichloropropane	ND		ug/kg	0.67	--	1
Dibromochloromethane	ND		ug/kg	0.67	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.67	--	1
Tetrachloroethene	15		ug/kg	0.33	--	1
Chlorobenzene	ND		ug/kg	0.33	--	1
Trichlorofluoromethane	ND		ug/kg	2.7	--	1
1,2-Dichloroethane	ND		ug/kg	0.67	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.33	--	1
Bromodichloromethane	ND		ug/kg	0.33	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.67	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.33	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.33	--	1
1,1-Dichloropropene	ND		ug/kg	0.33	--	1
Bromoform	ND		ug/kg	2.7	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.33	--	1
Benzene	ND		ug/kg	0.33	--	1
Toluene	ND		ug/kg	0.67	--	1
Ethylbenzene	ND		ug/kg	0.67	--	1
Chloromethane	ND		ug/kg	2.7	--	1
Bromomethane	ND		ug/kg	1.3	--	1
Vinyl chloride	ND		ug/kg	0.67	--	1
Chloroethane	ND		ug/kg	1.3	--	1
1,1-Dichloroethene	ND		ug/kg	0.67	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.0	--	1

Project Name: TUFTS STREET

Lab Number: L2408101

Project Number: 045163

Report Date: 02/21/24

SAMPLE RESULTS

Lab ID: L2408101-10
 Client ID: 50TUFT-B104(1-3)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 10:01
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.33	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.3	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.3	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.3	--	1
Methyl tert butyl ether	ND		ug/kg	1.3	--	1
p/m-Xylene	ND		ug/kg	1.3	--	1
o-Xylene	ND		ug/kg	0.67	--	1
Xylenes, Total	ND		ug/kg	0.67	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.67	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.67	--	1
Dibromomethane	ND		ug/kg	1.3	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.3	--	1
Styrene	ND		ug/kg	0.67	--	1
Dichlorodifluoromethane	ND		ug/kg	6.7	--	1
Acetone	ND		ug/kg	17	--	1
Carbon disulfide	ND		ug/kg	6.7	--	1
Methyl ethyl ketone	ND		ug/kg	6.7	--	1
Methyl isobutyl ketone	ND		ug/kg	6.7	--	1
2-Hexanone	ND		ug/kg	6.7	--	1
Bromochloromethane	ND		ug/kg	1.3	--	1
Tetrahydrofuran	ND		ug/kg	2.7	--	1
2,2-Dichloropropane	ND		ug/kg	1.3	--	1
1,2-Dibromoethane	ND		ug/kg	0.67	--	1
1,3-Dichloropropane	ND		ug/kg	1.3	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.33	--	1
Bromobenzene	ND		ug/kg	1.3	--	1
n-Butylbenzene	ND		ug/kg	0.67	--	1
sec-Butylbenzene	ND		ug/kg	0.67	--	1
tert-Butylbenzene	ND		ug/kg	1.3	--	1
o-Chlorotoluene	ND		ug/kg	1.3	--	1
p-Chlorotoluene	ND		ug/kg	1.3	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.0	--	1
Hexachlorobutadiene	ND		ug/kg	2.7	--	1
Isopropylbenzene	ND		ug/kg	0.67	--	1
p-Isopropyltoluene	ND		ug/kg	0.67	--	1
Naphthalene	ND		ug/kg	2.7	--	1
n-Propylbenzene	ND		ug/kg	0.67	--	1

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-10
 Client ID: 50TUFT-B104(1-3)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 10:01
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	1.3	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.3	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.3	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.3	--	1
Diethyl ether	ND		ug/kg	1.3	--	1
Diisopropyl Ether	ND		ug/kg	1.3	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.3	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.3	--	1
1,4-Dioxane	ND		ug/kg	53	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	97		70-130

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-11
 Client ID: 50TUFT-B104(3-5)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 10:02
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 141,8260D
 Analytical Date: 02/15/24 19:26
 Analyst: MAG
 Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.4	--	1
1,1-Dichloroethane	ND		ug/kg	0.88	--	1
Chloroform	ND		ug/kg	1.3	--	1
Carbon tetrachloride	ND		ug/kg	0.88	--	1
1,2-Dichloropropane	ND		ug/kg	0.88	--	1
Dibromochloromethane	ND		ug/kg	0.88	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.88	--	1
Tetrachloroethene	2.4		ug/kg	0.44	--	1
Chlorobenzene	ND		ug/kg	0.44	--	1
Trichlorofluoromethane	ND		ug/kg	3.5	--	1
1,2-Dichloroethane	ND		ug/kg	0.88	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.44	--	1
Bromodichloromethane	ND		ug/kg	0.44	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.88	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.44	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.44	--	1
1,1-Dichloropropene	ND		ug/kg	0.44	--	1
Bromoform	ND		ug/kg	3.5	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.44	--	1
Benzene	ND		ug/kg	0.44	--	1
Toluene	ND		ug/kg	0.88	--	1
Ethylbenzene	ND		ug/kg	0.88	--	1
Chloromethane	ND		ug/kg	3.5	--	1
Bromomethane	ND		ug/kg	1.8	--	1
Vinyl chloride	ND		ug/kg	0.88	--	1
Chloroethane	ND		ug/kg	1.8	--	1
1,1-Dichloroethene	ND		ug/kg	0.88	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.3	--	1

Project Name: TUFTS STREET

Lab Number: L2408101

Project Number: 045163

Report Date: 02/21/24

SAMPLE RESULTS

Lab ID: L2408101-11
 Client ID: 50TUFT-B104(3-5)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 10:02
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.44	--	1
1,2-Dichlorobenzene	ND		ug/kg	1.8	--	1
1,3-Dichlorobenzene	ND		ug/kg	1.8	--	1
1,4-Dichlorobenzene	ND		ug/kg	1.8	--	1
Methyl tert butyl ether	ND		ug/kg	1.8	--	1
p/m-Xylene	ND		ug/kg	1.8	--	1
o-Xylene	ND		ug/kg	0.88	--	1
Xylenes, Total	ND		ug/kg	0.88	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.88	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.88	--	1
Dibromomethane	ND		ug/kg	1.8	--	1
1,2,3-Trichloropropane	ND		ug/kg	1.8	--	1
Styrene	ND		ug/kg	0.88	--	1
Dichlorodifluoromethane	ND		ug/kg	8.8	--	1
Acetone	ND		ug/kg	22	--	1
Carbon disulfide	ND		ug/kg	8.8	--	1
Methyl ethyl ketone	ND		ug/kg	8.8	--	1
Methyl isobutyl ketone	ND		ug/kg	8.8	--	1
2-Hexanone	ND		ug/kg	8.8	--	1
Bromochloromethane	ND		ug/kg	1.8	--	1
Tetrahydrofuran	ND		ug/kg	3.5	--	1
2,2-Dichloropropane	ND		ug/kg	1.8	--	1
1,2-Dibromoethane	ND		ug/kg	0.88	--	1
1,3-Dichloropropane	ND		ug/kg	1.8	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.44	--	1
Bromobenzene	ND		ug/kg	1.8	--	1
n-Butylbenzene	ND		ug/kg	0.88	--	1
sec-Butylbenzene	ND		ug/kg	0.88	--	1
tert-Butylbenzene	ND		ug/kg	1.8	--	1
o-Chlorotoluene	ND		ug/kg	1.8	--	1
p-Chlorotoluene	ND		ug/kg	1.8	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.6	--	1
Hexachlorobutadiene	ND		ug/kg	3.5	--	1
Isopropylbenzene	ND		ug/kg	0.88	--	1
p-Isopropyltoluene	ND		ug/kg	0.88	--	1
Naphthalene	ND		ug/kg	3.5	--	1
n-Propylbenzene	ND		ug/kg	0.88	--	1

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-11
 Client ID: 50TUFT-B104(3-5)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 10:02
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	1.8	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.8	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.8	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.8	--	1
Diethyl ether	ND		ug/kg	1.8	--	1
Diisopropyl Ether	ND		ug/kg	1.8	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	1.8	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	1.8	--	1
1,4-Dioxane	ND		ug/kg	70	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	95		70-130

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-12
 Client ID: 50TUFT-B105(0-1)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 11:00
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 141,8260D
 Analytical Date: 02/15/24 20:57
 Analyst: MAG
 Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	220	--	1
1,1-Dichloroethane	ND		ug/kg	44	--	1
Chloroform	ND		ug/kg	67	--	1
Carbon tetrachloride	ND		ug/kg	44	--	1
1,2-Dichloropropane	ND		ug/kg	44	--	1
Dibromochloromethane	ND		ug/kg	44	--	1
1,1,2-Trichloroethane	ND		ug/kg	44	--	1
Tetrachloroethene	810		ug/kg	22	--	1
Chlorobenzene	ND		ug/kg	22	--	1
Trichlorofluoromethane	ND		ug/kg	180	--	1
1,2-Dichloroethane	ND		ug/kg	44	--	1
1,1,1-Trichloroethane	ND		ug/kg	22	--	1
Bromodichloromethane	ND		ug/kg	22	--	1
trans-1,3-Dichloropropene	ND		ug/kg	44	--	1
cis-1,3-Dichloropropene	ND		ug/kg	22	--	1
1,3-Dichloropropene, Total	ND		ug/kg	22	--	1
1,1-Dichloropropene	ND		ug/kg	22	--	1
Bromoform	ND		ug/kg	180	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	22	--	1
Benzene	ND		ug/kg	22	--	1
Toluene	53		ug/kg	44	--	1
Ethylbenzene	ND		ug/kg	44	--	1
Chloromethane	ND		ug/kg	180	--	1
Bromomethane	ND		ug/kg	89	--	1
Vinyl chloride	ND		ug/kg	44	--	1
Chloroethane	ND		ug/kg	89	--	1
1,1-Dichloroethene	ND		ug/kg	44	--	1
trans-1,2-Dichloroethene	ND		ug/kg	67	--	1

Project Name: TUFTS STREET

Lab Number: L2408101

Project Number: 045163

Report Date: 02/21/24

SAMPLE RESULTS

Lab ID: L2408101-12
 Client ID: 50TUFT-B105(0-1)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 11:00
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	22	--	1
1,2-Dichlorobenzene	ND		ug/kg	89	--	1
1,3-Dichlorobenzene	ND		ug/kg	89	--	1
1,4-Dichlorobenzene	ND		ug/kg	89	--	1
Methyl tert butyl ether	ND		ug/kg	89	--	1
p/m-Xylene	ND		ug/kg	89	--	1
o-Xylene	ND		ug/kg	44	--	1
Xylenes, Total	ND		ug/kg	44	--	1
cis-1,2-Dichloroethene	ND		ug/kg	44	--	1
1,2-Dichloroethene, Total	ND		ug/kg	44	--	1
Dibromomethane	ND		ug/kg	89	--	1
1,2,3-Trichloropropane	ND		ug/kg	89	--	1
Styrene	ND		ug/kg	44	--	1
Dichlorodifluoromethane	ND		ug/kg	440	--	1
Acetone	ND		ug/kg	440	--	1
Carbon disulfide	ND		ug/kg	440	--	1
Methyl ethyl ketone	ND		ug/kg	440	--	1
Methyl isobutyl ketone	ND		ug/kg	440	--	1
2-Hexanone	ND		ug/kg	440	--	1
Bromochloromethane	ND		ug/kg	89	--	1
Tetrahydrofuran	ND		ug/kg	180	--	1
2,2-Dichloropropane	ND		ug/kg	89	--	1
1,2-Dibromoethane	ND		ug/kg	44	--	1
1,3-Dichloropropane	ND		ug/kg	89	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	22	--	1
Bromobenzene	ND		ug/kg	89	--	1
n-Butylbenzene	ND		ug/kg	44	--	1
sec-Butylbenzene	ND		ug/kg	44	--	1
tert-Butylbenzene	ND		ug/kg	89	--	1
o-Chlorotoluene	ND		ug/kg	89	--	1
p-Chlorotoluene	ND		ug/kg	89	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	130	--	1
Hexachlorobutadiene	ND		ug/kg	180	--	1
Isopropylbenzene	ND		ug/kg	44	--	1
p-Isopropyltoluene	ND		ug/kg	44	--	1
Naphthalene	ND		ug/kg	180	--	1
n-Propylbenzene	ND		ug/kg	44	--	1

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-12
 Client ID: 50TUFT-B105(0-1)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 11:00
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 High - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	89	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	89	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	89	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	89	--	1
Diethyl ether	ND		ug/kg	89	--	1
Diisopropyl Ether	ND		ug/kg	89	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	89	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	89	--	1
1,4-Dioxane	ND		ug/kg	3600	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	94		70-130

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-13
 Client ID: 50TUFT-B105(1-3)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 11:01
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 141,8260D
 Analytical Date: 02/15/24 19:56
 Analyst: MAG
 Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	6.1	--	1
1,1-Dichloroethane	ND		ug/kg	1.2	--	1
Chloroform	ND		ug/kg	1.8	--	1
Carbon tetrachloride	ND		ug/kg	1.2	--	1
1,2-Dichloropropane	ND		ug/kg	1.2	--	1
Dibromochloromethane	ND		ug/kg	1.2	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	--	1
Tetrachloroethene	10		ug/kg	0.61	--	1
Chlorobenzene	ND		ug/kg	0.61	--	1
Trichlorofluoromethane	ND		ug/kg	4.8	--	1
1,2-Dichloroethane	ND		ug/kg	1.2	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.61	--	1
Bromodichloromethane	ND		ug/kg	0.61	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.61	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.61	--	1
1,1-Dichloropropene	ND		ug/kg	0.61	--	1
Bromoform	ND		ug/kg	4.8	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.61	--	1
Benzene	ND		ug/kg	0.61	--	1
Toluene	ND		ug/kg	1.2	--	1
Ethylbenzene	ND		ug/kg	1.2	--	1
Chloromethane	ND		ug/kg	4.8	--	1
Bromomethane	ND		ug/kg	2.4	--	1
Vinyl chloride	ND		ug/kg	1.2	--	1
Chloroethane	ND		ug/kg	2.4	--	1
1,1-Dichloroethene	ND		ug/kg	1.2	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	--	1

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**SAMPLE RESULTS**

Lab ID: L2408101-13
 Client ID: 50TUFT-B105(1-3)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 11:01
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.61	--	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	--	1
1,3-Dichlorobenzene	ND		ug/kg	2.4	--	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	--	1
Methyl tert butyl ether	ND		ug/kg	2.4	--	1
p/m-Xylene	ND		ug/kg	2.4	--	1
o-Xylene	ND		ug/kg	1.2	--	1
Xylenes, Total	ND		ug/kg	1.2	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	--	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	--	1
Dibromomethane	ND		ug/kg	2.4	--	1
1,2,3-Trichloropropane	ND		ug/kg	2.4	--	1
Styrene	ND		ug/kg	1.2	--	1
Dichlorodifluoromethane	ND		ug/kg	12	--	1
Acetone	ND		ug/kg	30	--	1
Carbon disulfide	ND		ug/kg	12	--	1
Methyl ethyl ketone	ND		ug/kg	12	--	1
Methyl isobutyl ketone	ND		ug/kg	12	--	1
2-Hexanone	ND		ug/kg	12	--	1
Bromochloromethane	ND		ug/kg	2.4	--	1
Tetrahydrofuran	ND		ug/kg	4.8	--	1
2,2-Dichloropropane	ND		ug/kg	2.4	--	1
1,2-Dibromoethane	ND		ug/kg	1.2	--	1
1,3-Dichloropropane	ND		ug/kg	2.4	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.61	--	1
Bromobenzene	ND		ug/kg	2.4	--	1
n-Butylbenzene	ND		ug/kg	1.2	--	1
sec-Butylbenzene	ND		ug/kg	1.2	--	1
tert-Butylbenzene	ND		ug/kg	2.4	--	1
o-Chlorotoluene	ND		ug/kg	2.4	--	1
p-Chlorotoluene	ND		ug/kg	2.4	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.6	--	1
Hexachlorobutadiene	ND		ug/kg	4.8	--	1
Isopropylbenzene	ND		ug/kg	1.2	--	1
p-Isopropyltoluene	ND		ug/kg	1.2	--	1
Naphthalene	ND		ug/kg	4.8	--	1
n-Propylbenzene	ND		ug/kg	1.2	--	1

Project Name: TUFTS STREET

Lab Number: L2408101

Project Number: 045163

Report Date: 02/21/24

SAMPLE RESULTS

Lab ID: L2408101-13
 Client ID: 50TUFT-B105(1-3)
 Sample Location: SOMERVILLE, MA

Date Collected: 02/12/24 11:01
 Date Received: 02/14/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	2.4	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.4	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.4	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	--	1
Diethyl ether	ND		ug/kg	2.4	--	1
Diisopropyl Ether	ND		ug/kg	2.4	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.4	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.4	--	1
1,4-Dioxane	ND		ug/kg	97	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	96		70-130

Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
 Analytical Date: 02/15/24 13:52
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 07,12 Batch: WG1886042-5					
Methylene chloride	ND		ug/kg	250	--
1,1-Dichloroethane	ND		ug/kg	50	--
Chloroform	ND		ug/kg	75	--
Carbon tetrachloride	ND		ug/kg	50	--
1,2-Dichloropropane	ND		ug/kg	50	--
Dibromochloromethane	ND		ug/kg	50	--
1,1,2-Trichloroethane	ND		ug/kg	50	--
Tetrachloroethene	ND		ug/kg	25	--
Chlorobenzene	ND		ug/kg	25	--
Trichlorofluoromethane	ND		ug/kg	200	--
1,2-Dichloroethane	ND		ug/kg	50	--
1,1,1-Trichloroethane	ND		ug/kg	25	--
Bromodichloromethane	ND		ug/kg	25	--
trans-1,3-Dichloropropene	ND		ug/kg	50	--
cis-1,3-Dichloropropene	ND		ug/kg	25	--
1,3-Dichloropropene, Total	ND		ug/kg	25	--
1,1-Dichloropropene	ND		ug/kg	25	--
Bromoform	ND		ug/kg	200	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	--
Benzene	ND		ug/kg	25	--
Toluene	ND		ug/kg	50	--
Ethylbenzene	ND		ug/kg	50	--
Chloromethane	ND		ug/kg	200	--
Bromomethane	ND		ug/kg	100	--
Vinyl chloride	ND		ug/kg	50	--
Chloroethane	ND		ug/kg	100	--
1,1-Dichloroethene	ND		ug/kg	50	--
trans-1,2-Dichloroethene	ND		ug/kg	75	--
Trichloroethene	ND		ug/kg	25	--

Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
 Analytical Date: 02/15/24 13:52
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 07,12 Batch: WG1886042-5					
1,2-Dichlorobenzene	ND		ug/kg	100	--
1,3-Dichlorobenzene	ND		ug/kg	100	--
1,4-Dichlorobenzene	ND		ug/kg	100	--
Methyl tert butyl ether	ND		ug/kg	100	--
p/m-Xylene	ND		ug/kg	100	--
o-Xylene	ND		ug/kg	50	--
Xylenes, Total	ND		ug/kg	50	--
cis-1,2-Dichloroethene	ND		ug/kg	50	--
1,2-Dichloroethene, Total	ND		ug/kg	50	--
Dibromomethane	ND		ug/kg	100	--
1,2,3-Trichloropropane	ND		ug/kg	100	--
Styrene	ND		ug/kg	50	--
Dichlorodifluoromethane	ND		ug/kg	500	--
Acetone	ND		ug/kg	500	--
Carbon disulfide	ND		ug/kg	500	--
Methyl ethyl ketone	ND		ug/kg	500	--
Methyl isobutyl ketone	ND		ug/kg	500	--
2-Hexanone	ND		ug/kg	500	--
Bromochloromethane	ND		ug/kg	100	--
Tetrahydrofuran	ND		ug/kg	200	--
2,2-Dichloropropane	ND		ug/kg	100	--
1,2-Dibromoethane	ND		ug/kg	50	--
1,3-Dichloropropane	ND		ug/kg	100	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	--
Bromobenzene	ND		ug/kg	100	--
n-Butylbenzene	ND		ug/kg	50	--
sec-Butylbenzene	ND		ug/kg	50	--
tert-Butylbenzene	ND		ug/kg	100	--
o-Chlorotoluene	ND		ug/kg	100	--

Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 02/15/24 13:52
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 07,12 Batch: WG1886042-5					
p-Chlorotoluene	ND		ug/kg	100	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	--
Hexachlorobutadiene	ND		ug/kg	200	--
Isopropylbenzene	ND		ug/kg	50	--
p-Isopropyltoluene	ND		ug/kg	50	--
Naphthalene	ND		ug/kg	200	--
n-Propylbenzene	ND		ug/kg	50	--
1,2,3-Trichlorobenzene	ND		ug/kg	100	--
1,2,4-Trichlorobenzene	ND		ug/kg	100	--
1,3,5-Trimethylbenzene	ND		ug/kg	100	--
1,2,4-Trimethylbenzene	ND		ug/kg	100	--
Diethyl ether	ND		ug/kg	100	--
Diisopropyl Ether	ND		ug/kg	100	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	100	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	100	--
1,4-Dioxane	ND		ug/kg	4000	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	92		70-130

Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
 Analytical Date: 02/15/24 13:52
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-05,08-11,13 Batch: WG1886062-5					
Methylene chloride	ND		ug/kg	5.0	--
1,1-Dichloroethane	ND		ug/kg	1.0	--
Chloroform	ND		ug/kg	1.5	--
Carbon tetrachloride	ND		ug/kg	1.0	--
1,2-Dichloropropane	ND		ug/kg	1.0	--
Dibromochloromethane	ND		ug/kg	1.0	--
1,1,2-Trichloroethane	ND		ug/kg	1.0	--
Tetrachloroethene	ND		ug/kg	0.50	--
Chlorobenzene	ND		ug/kg	0.50	--
Trichlorofluoromethane	ND		ug/kg	4.0	--
1,2-Dichloroethane	ND		ug/kg	1.0	--
1,1,1-Trichloroethane	ND		ug/kg	0.50	--
Bromodichloromethane	ND		ug/kg	0.50	--
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--
cis-1,3-Dichloropropene	ND		ug/kg	0.50	--
1,3-Dichloropropene, Total	ND		ug/kg	0.50	--
1,1-Dichloropropene	ND		ug/kg	0.50	--
Bromoform	ND		ug/kg	4.0	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	--
Benzene	ND		ug/kg	0.50	--
Toluene	ND		ug/kg	1.0	--
Ethylbenzene	ND		ug/kg	1.0	--
Chloromethane	ND		ug/kg	4.0	--
Bromomethane	ND		ug/kg	2.0	--
Vinyl chloride	ND		ug/kg	1.0	--
Chloroethane	ND		ug/kg	2.0	--
1,1-Dichloroethene	ND		ug/kg	1.0	--
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--
Trichloroethene	ND		ug/kg	0.50	--

Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
 Analytical Date: 02/15/24 13:52
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-05,08-11,13 Batch: WG1886062-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	--
1,3-Dichlorobenzene	ND		ug/kg	2.0	--
1,4-Dichlorobenzene	ND		ug/kg	2.0	--
Methyl tert butyl ether	ND		ug/kg	2.0	--
p/m-Xylene	ND		ug/kg	2.0	--
o-Xylene	ND		ug/kg	1.0	--
Xylenes, Total	ND		ug/kg	1.0	--
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--
Dibromomethane	ND		ug/kg	2.0	--
1,2,3-Trichloropropane	ND		ug/kg	2.0	--
Styrene	ND		ug/kg	1.0	--
Dichlorodifluoromethane	ND		ug/kg	10	--
Acetone	ND		ug/kg	25	--
Carbon disulfide	ND		ug/kg	10	--
Methyl ethyl ketone	ND		ug/kg	10	--
Methyl isobutyl ketone	ND		ug/kg	10	--
2-Hexanone	ND		ug/kg	10	--
Bromochloromethane	ND		ug/kg	2.0	--
Tetrahydrofuran	ND		ug/kg	4.0	--
2,2-Dichloropropane	ND		ug/kg	2.0	--
1,2-Dibromoethane	ND		ug/kg	1.0	--
1,3-Dichloropropane	ND		ug/kg	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	--
Bromobenzene	ND		ug/kg	2.0	--
n-Butylbenzene	ND		ug/kg	1.0	--
sec-Butylbenzene	ND		ug/kg	1.0	--
tert-Butylbenzene	ND		ug/kg	2.0	--
o-Chlorotoluene	ND		ug/kg	2.0	--

Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 02/15/24 13:52
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-05,08-11,13 Batch: WG1886062-5					
p-Chlorotoluene	ND		ug/kg	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	--
Hexachlorobutadiene	ND		ug/kg	4.0	--
Isopropylbenzene	ND		ug/kg	1.0	--
p-Isopropyltoluene	ND		ug/kg	1.0	--
Naphthalene	ND		ug/kg	4.0	--
n-Propylbenzene	ND		ug/kg	1.0	--
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	--
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	--
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	--
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	--
Diethyl ether	ND		ug/kg	2.0	--
Diisopropyl Ether	ND		ug/kg	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	--
1,4-Dioxane	ND		ug/kg	80	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	92		70-130

Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
 Analytical Date: 02/20/24 10:26
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 06 Batch: WG1887347-5					
Methylene chloride	ND		ug/kg	250	--
1,1-Dichloroethane	ND		ug/kg	50	--
Chloroform	76		ug/kg	75	--
Carbon tetrachloride	ND		ug/kg	50	--
1,2-Dichloropropane	ND		ug/kg	50	--
Dibromochloromethane	ND		ug/kg	50	--
1,1,2-Trichloroethane	ND		ug/kg	50	--
Tetrachloroethene	ND		ug/kg	25	--
Chlorobenzene	ND		ug/kg	25	--
Trichlorofluoromethane	ND		ug/kg	200	--
1,2-Dichloroethane	ND		ug/kg	50	--
1,1,1-Trichloroethane	ND		ug/kg	25	--
Bromodichloromethane	ND		ug/kg	25	--
trans-1,3-Dichloropropene	ND		ug/kg	50	--
cis-1,3-Dichloropropene	ND		ug/kg	25	--
1,3-Dichloropropene, Total	ND		ug/kg	25	--
1,1-Dichloropropene	ND		ug/kg	25	--
Bromoform	ND		ug/kg	200	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	--
Benzene	ND		ug/kg	25	--
Toluene	ND		ug/kg	50	--
Ethylbenzene	ND		ug/kg	50	--
Chloromethane	ND		ug/kg	200	--
Bromomethane	ND		ug/kg	100	--
Vinyl chloride	ND		ug/kg	50	--
Chloroethane	ND		ug/kg	100	--
1,1-Dichloroethene	ND		ug/kg	50	--
trans-1,2-Dichloroethene	ND		ug/kg	75	--
Trichloroethene	ND		ug/kg	25	--

Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
 Analytical Date: 02/20/24 10:26
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 06 Batch: WG1887347-5					
1,2-Dichlorobenzene	ND		ug/kg	100	--
1,3-Dichlorobenzene	ND		ug/kg	100	--
1,4-Dichlorobenzene	ND		ug/kg	100	--
Methyl tert butyl ether	ND		ug/kg	100	--
p/m-Xylene	ND		ug/kg	100	--
o-Xylene	ND		ug/kg	50	--
Xylenes, Total	ND		ug/kg	50	--
cis-1,2-Dichloroethene	ND		ug/kg	50	--
1,2-Dichloroethene, Total	ND		ug/kg	50	--
Dibromomethane	ND		ug/kg	100	--
1,2,3-Trichloropropane	ND		ug/kg	100	--
Styrene	ND		ug/kg	50	--
Dichlorodifluoromethane	ND		ug/kg	500	--
Acetone	ND		ug/kg	500	--
Carbon disulfide	ND		ug/kg	500	--
Methyl ethyl ketone	ND		ug/kg	500	--
Methyl isobutyl ketone	ND		ug/kg	500	--
2-Hexanone	ND		ug/kg	500	--
Bromochloromethane	ND		ug/kg	100	--
Tetrahydrofuran	ND		ug/kg	200	--
2,2-Dichloropropane	ND		ug/kg	100	--
1,2-Dibromoethane	ND		ug/kg	50	--
1,3-Dichloropropane	ND		ug/kg	100	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	--
Bromobenzene	ND		ug/kg	100	--
n-Butylbenzene	ND		ug/kg	50	--
sec-Butylbenzene	ND		ug/kg	50	--
tert-Butylbenzene	ND		ug/kg	100	--
o-Chlorotoluene	ND		ug/kg	100	--

Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 02/20/24 10:26
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 06 Batch: WG1887347-5					
p-Chlorotoluene	ND		ug/kg	100	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	--
Hexachlorobutadiene	ND		ug/kg	200	--
Isopropylbenzene	ND		ug/kg	50	--
p-Isopropyltoluene	ND		ug/kg	50	--
Naphthalene	ND		ug/kg	200	--
n-Propylbenzene	ND		ug/kg	50	--
1,2,3-Trichlorobenzene	ND		ug/kg	100	--
1,2,4-Trichlorobenzene	ND		ug/kg	100	--
1,3,5-Trimethylbenzene	ND		ug/kg	100	--
1,2,4-Trimethylbenzene	ND		ug/kg	100	--
Diethyl ether	ND		ug/kg	100	--
Diisopropyl Ether	ND		ug/kg	100	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	100	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	100	--
1,4-Dioxane	ND		ug/kg	4000	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	86		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	94		70-130

Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
 Analytical Date: 02/21/24 09:56
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 06 Batch: WG1887734-5					
Methylene chloride	ND		ug/kg	250	--
1,1-Dichloroethane	ND		ug/kg	50	--
Chloroform	ND		ug/kg	75	--
Carbon tetrachloride	ND		ug/kg	50	--
1,2-Dichloropropane	ND		ug/kg	50	--
Dibromochloromethane	ND		ug/kg	50	--
1,1,2-Trichloroethane	ND		ug/kg	50	--
Tetrachloroethene	ND		ug/kg	25	--
Chlorobenzene	ND		ug/kg	25	--
Trichlorofluoromethane	ND		ug/kg	200	--
1,2-Dichloroethane	ND		ug/kg	50	--
1,1,1-Trichloroethane	ND		ug/kg	25	--
Bromodichloromethane	ND		ug/kg	25	--
trans-1,3-Dichloropropene	ND		ug/kg	50	--
cis-1,3-Dichloropropene	ND		ug/kg	25	--
1,3-Dichloropropene, Total	ND		ug/kg	25	--
1,1-Dichloropropene	ND		ug/kg	25	--
Bromoform	ND		ug/kg	200	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	--
Benzene	ND		ug/kg	25	--
Toluene	ND		ug/kg	50	--
Ethylbenzene	ND		ug/kg	50	--
Chloromethane	ND		ug/kg	200	--
Bromomethane	ND		ug/kg	100	--
Vinyl chloride	ND		ug/kg	50	--
Chloroethane	ND		ug/kg	100	--
1,1-Dichloroethene	ND		ug/kg	50	--
trans-1,2-Dichloroethene	ND		ug/kg	75	--
Trichloroethene	ND		ug/kg	25	--

Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 02/21/24 09:56
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 06 Batch: WG1887734-5					
1,2-Dichlorobenzene	ND		ug/kg	100	--
1,3-Dichlorobenzene	ND		ug/kg	100	--
1,4-Dichlorobenzene	ND		ug/kg	100	--
Methyl tert butyl ether	ND		ug/kg	100	--
p/m-Xylene	ND		ug/kg	100	--
o-Xylene	ND		ug/kg	50	--
Xylenes, Total	ND		ug/kg	50	--
cis-1,2-Dichloroethene	ND		ug/kg	50	--
1,2-Dichloroethene, Total	ND		ug/kg	50	--
Dibromomethane	ND		ug/kg	100	--
1,2,3-Trichloropropane	ND		ug/kg	100	--
Styrene	ND		ug/kg	50	--
Dichlorodifluoromethane	ND		ug/kg	500	--
Acetone	ND		ug/kg	500	--
Carbon disulfide	ND		ug/kg	500	--
Methyl ethyl ketone	ND		ug/kg	500	--
Methyl isobutyl ketone	ND		ug/kg	500	--
2-Hexanone	ND		ug/kg	500	--
Bromochloromethane	ND		ug/kg	100	--
Tetrahydrofuran	ND		ug/kg	200	--
2,2-Dichloropropane	ND		ug/kg	100	--
1,2-Dibromoethane	ND		ug/kg	50	--
1,3-Dichloropropane	ND		ug/kg	100	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	--
Bromobenzene	ND		ug/kg	100	--
n-Butylbenzene	ND		ug/kg	50	--
sec-Butylbenzene	ND		ug/kg	50	--
tert-Butylbenzene	ND		ug/kg	100	--
o-Chlorotoluene	ND		ug/kg	100	--

Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
 Analytical Date: 02/21/24 09:56
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 06 Batch: WG1887734-5					
p-Chlorotoluene	ND		ug/kg	100	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	--
Hexachlorobutadiene	ND		ug/kg	200	--
Isopropylbenzene	ND		ug/kg	50	--
p-Isopropyltoluene	ND		ug/kg	50	--
Naphthalene	ND		ug/kg	200	--
n-Propylbenzene	ND		ug/kg	50	--
1,2,3-Trichlorobenzene	ND		ug/kg	100	--
1,2,4-Trichlorobenzene	ND		ug/kg	100	--
1,3,5-Trimethylbenzene	ND		ug/kg	100	--
1,2,4-Trimethylbenzene	ND		ug/kg	100	--
Diethyl ether	ND		ug/kg	100	--
Diisopropyl Ether	ND		ug/kg	100	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	100	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	100	--
1,4-Dioxane	ND		ug/kg	4000	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	85		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	86		70-130
Dibromofluoromethane	94		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: TUFTS STREET

Project Number: 045163

Lab Number: L2408101

Report Date: 02/21/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 07,12 Batch: WG1886042-3 WG1886042-4								
Methylene chloride	77		78		70-130	1		20
1,1-Dichloroethane	81		81		70-130	0		20
Chloroform	84		84		70-130	0		20
Carbon tetrachloride	73		73		70-130	0		20
1,2-Dichloropropane	85		85		70-130	0		20
Dibromochloromethane	90		90		70-130	0		20
1,1,2-Trichloroethane	86		86		70-130	0		20
Tetrachloroethene	91		90		70-130	1		20
Chlorobenzene	86		85		70-130	1		20
Trichlorofluoromethane	73		72		70-130	1		20
1,2-Dichloroethane	84		84		70-130	0		20
1,1,1-Trichloroethane	86		85		70-130	1		20
Bromodichloromethane	87		86		70-130	1		20
trans-1,3-Dichloropropene	92		92		70-130	0		20
cis-1,3-Dichloropropene	92		92		70-130	0		20
1,1-Dichloropropene	88		88		70-130	0		20
Bromoform	89		87		70-130	2		20
1,1,2,2-Tetrachloroethane	83		82		70-130	1		20
Benzene	84		84		70-130	0		20
Toluene	84		84		70-130	0		20
Ethylbenzene	86		86		70-130	0		20
Chloromethane	67	Q	67	Q	70-130	0		20
Bromomethane	73		73		70-130	0		20

Lab Control Sample Analysis Batch Quality Control

Project Name: TUFTS STREET

Project Number: 045163

Lab Number: L2408101

Report Date: 02/21/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 07,12 Batch: WG1886042-3 WG1886042-4								
Vinyl chloride	72		72		70-130	0		20
Chloroethane	78		78		70-130	0		20
1,1-Dichloroethene	68	Q	68	Q	70-130	0		20
trans-1,2-Dichloroethene	80		80		70-130	0		20
Trichloroethene	86		86		70-130	0		20
1,2-Dichlorobenzene	88		87		70-130	1		20
1,3-Dichlorobenzene	88		87		70-130	1		20
1,4-Dichlorobenzene	87		86		70-130	1		20
Methyl tert butyl ether	86		86		70-130	0		20
p/m-Xylene	88		88		70-130	0		20
o-Xylene	88		88		70-130	0		20
cis-1,2-Dichloroethene	84		83		70-130	1		20
Dibromomethane	86		84		70-130	2		20
1,2,3-Trichloropropane	82		81		70-130	1		20
Styrene	90		90		70-130	0		20
Dichlorodifluoromethane	62	Q	62	Q	70-130	0		20
Acetone	64	Q	64	Q	70-130	0		20
Carbon disulfide	68	Q	68	Q	70-130	0		20
Methyl ethyl ketone	71		71		70-130	0		20
Methyl isobutyl ketone	85		85		70-130	0		20
2-Hexanone	78		76		70-130	3		20
Bromochloromethane	87		86		70-130	1		20
Tetrahydrofuran	65	Q	64	Q	70-130	2		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: TUFTS STREET

Project Number: 045163

Lab Number: L2408101

Report Date: 02/21/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 07,12 Batch: WG1886042-3 WG1886042-4								
2,2-Dichloropropane	87		86		70-130	1		20
1,2-Dibromoethane	88		87		70-130	1		20
1,3-Dichloropropane	86		85		70-130	1		20
1,1,1,2-Tetrachloroethane	89		89		70-130	0		20
Bromobenzene	89		88		70-130	1		20
n-Butylbenzene	91		89		70-130	2		20
sec-Butylbenzene	89		88		70-130	1		20
tert-Butylbenzene	89		89		70-130	0		20
o-Chlorotoluene	88		87		70-130	1		20
p-Chlorotoluene	88		88		70-130	0		20
1,2-Dibromo-3-chloropropane	82		80		70-130	2		20
Hexachlorobutadiene	84		82		70-130	2		20
Isopropylbenzene	89		88		70-130	1		20
p-Isopropyltoluene	90		89		70-130	1		20
Naphthalene	88		86		70-130	2		20
n-Propylbenzene	88		88		70-130	0		20
1,2,3-Trichlorobenzene	92		90		70-130	2		20
1,2,4-Trichlorobenzene	94		90		70-130	4		20
1,3,5-Trimethylbenzene	90		88		70-130	2		20
1,2,4-Trimethylbenzene	90		89		70-130	1		20
Diethyl ether	86		85		70-130	1		20
Diisopropyl Ether	83		83		70-130	0		20
Ethyl-Tert-Butyl-Ether	91		90		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 07,12 Batch: WG1886042-3 WG1886042-4								
Tertiary-Amyl Methyl Ether	94		93		70-130	1		20
1,4-Dioxane	87		84		70-130	4		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	90		89		70-130
Toluene-d8	92		92		70-130
4-Bromofluorobenzene	94		94		70-130
Dibromofluoromethane	91		92		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: TUFTS STREET

Project Number: 045163

Lab Number: L2408101

Report Date: 02/21/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-05,08-11,13 Batch: WG1886062-3 WG1886062-4								
Methylene chloride	77		78		70-130	1		20
1,1-Dichloroethane	81		81		70-130	0		20
Chloroform	84		84		70-130	0		20
Carbon tetrachloride	73		73		70-130	0		20
1,2-Dichloropropane	85		85		70-130	0		20
Dibromochloromethane	90		90		70-130	0		20
1,1,2-Trichloroethane	86		86		70-130	0		20
Tetrachloroethene	91		90		70-130	1		20
Chlorobenzene	86		85		70-130	1		20
Trichlorofluoromethane	73		72		70-130	1		20
1,2-Dichloroethane	84		84		70-130	0		20
1,1,1-Trichloroethane	86		85		70-130	1		20
Bromodichloromethane	87		86		70-130	1		20
trans-1,3-Dichloropropene	92		92		70-130	0		20
cis-1,3-Dichloropropene	92		92		70-130	0		20
1,1-Dichloropropene	88		88		70-130	0		20
Bromoform	89		87		70-130	2		20
1,1,2,2-Tetrachloroethane	83		82		70-130	1		20
Benzene	84		84		70-130	0		20
Toluene	84		84		70-130	0		20
Ethylbenzene	86		86		70-130	0		20
Chloromethane	67	Q	67	Q	70-130	0		20
Bromomethane	73		73		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: TUFTS STREET

Project Number: 045163

Lab Number: L2408101

Report Date: 02/21/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-05,08-11,13 Batch: WG1886062-3 WG1886062-4								
Vinyl chloride	72		72		70-130	0		20
Chloroethane	78		78		70-130	0		20
1,1-Dichloroethene	68	Q	68	Q	70-130	0		20
trans-1,2-Dichloroethene	80		80		70-130	0		20
Trichloroethene	86		86		70-130	0		20
1,2-Dichlorobenzene	88		87		70-130	1		20
1,3-Dichlorobenzene	88		87		70-130	1		20
1,4-Dichlorobenzene	87		86		70-130	1		20
Methyl tert butyl ether	86		86		70-130	0		20
p/m-Xylene	88		88		70-130	0		20
o-Xylene	88		88		70-130	0		20
cis-1,2-Dichloroethene	84		83		70-130	1		20
Dibromomethane	86		84		70-130	2		20
1,2,3-Trichloropropane	82		81		70-130	1		20
Styrene	90		90		70-130	0		20
Dichlorodifluoromethane	62	Q	62	Q	70-130	0		20
Acetone	64	Q	64	Q	70-130	0		20
Carbon disulfide	68	Q	68	Q	70-130	0		20
Methyl ethyl ketone	71		71		70-130	0		20
Methyl isobutyl ketone	85		85		70-130	0		20
2-Hexanone	78		76		70-130	3		20
Bromochloromethane	87		86		70-130	1		20
Tetrahydrofuran	65	Q	64	Q	70-130	2		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: TUFTS STREET

Project Number: 045163

Lab Number: L2408101

Report Date: 02/21/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-05,08-11,13 Batch: WG1886062-3 WG1886062-4								
2,2-Dichloropropane	87		86		70-130	1		20
1,2-Dibromoethane	88		87		70-130	1		20
1,3-Dichloropropane	86		85		70-130	1		20
1,1,1,2-Tetrachloroethane	89		89		70-130	0		20
Bromobenzene	89		88		70-130	1		20
n-Butylbenzene	91		89		70-130	2		20
sec-Butylbenzene	89		88		70-130	1		20
tert-Butylbenzene	89		89		70-130	0		20
o-Chlorotoluene	88		87		70-130	1		20
p-Chlorotoluene	88		88		70-130	0		20
1,2-Dibromo-3-chloropropane	82		80		70-130	2		20
Hexachlorobutadiene	84		82		70-130	2		20
Isopropylbenzene	89		88		70-130	1		20
p-Isopropyltoluene	90		89		70-130	1		20
Naphthalene	88		86		70-130	2		20
n-Propylbenzene	88		88		70-130	0		20
1,2,3-Trichlorobenzene	92		90		70-130	2		20
1,2,4-Trichlorobenzene	94		90		70-130	4		20
1,3,5-Trimethylbenzene	90		88		70-130	2		20
1,2,4-Trimethylbenzene	90		89		70-130	1		20
Diethyl ether	86		85		70-130	1		20
Diisopropyl Ether	83		83		70-130	0		20
Ethyl-Tert-Butyl-Ether	91		90		70-130	1		20

Lab Control Sample Analysis**Batch Quality Control****Project Name:** TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-05,08-11,13 Batch: WG1886062-3 WG1886062-4								
Tertiary-Amyl Methyl Ether	94		93		70-130	1		20
1,4-Dioxane	87		84		70-130	4		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	90		89		70-130
Toluene-d8	92		92		70-130
4-Bromofluorobenzene	94		94		70-130
Dibromofluoromethane	91		92		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: TUFTS STREET

Project Number: 045163

Lab Number: L2408101

Report Date: 02/21/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG1887347-3 WG1887347-4								
Methylene chloride	95		93		70-130	2		20
1,1-Dichloroethane	97		93		70-130	4		20
Chloroform	98		95		70-130	3		20
Carbon tetrachloride	100		97		70-130	3		20
1,2-Dichloropropane	90		87		70-130	3		20
Dibromochloromethane	96		95		70-130	1		20
1,1,2-Trichloroethane	87		86		70-130	1		20
Tetrachloroethene	111		106		70-130	5		20
Chlorobenzene	103		100		70-130	3		20
Trichlorofluoromethane	113		110		70-130	3		20
1,2-Dichloroethane	86		85		70-130	1		20
1,1,1-Trichloroethane	113		108		70-130	5		20
Bromodichloromethane	93		91		70-130	2		20
trans-1,3-Dichloropropene	90		88		70-130	2		20
cis-1,3-Dichloropropene	96		93		70-130	3		20
1,1-Dichloropropene	106		102		70-130	4		20
Bromoform	87		87		70-130	0		20
1,1,2,2-Tetrachloroethane	76		78		70-130	3		20
Benzene	103		99		70-130	4		20
Toluene	103		98		70-130	5		20
Ethylbenzene	104		101		70-130	3		20
Chloromethane	68	Q	64	Q	70-130	6		20
Bromomethane	120		109		70-130	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: TUFTS STREET

Project Number: 045163

Lab Number: L2408101

Report Date: 02/21/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG1887347-3 WG1887347-4								
Vinyl chloride	80		76		70-130	5		20
Chloroethane	98		93		70-130	5		20
1,1-Dichloroethene	110		106		70-130	4		20
trans-1,2-Dichloroethene	107		104		70-130	3		20
Trichloroethene	110		106		70-130	4		20
1,2-Dichlorobenzene	100		97		70-130	3		20
1,3-Dichlorobenzene	104		101		70-130	3		20
1,4-Dichlorobenzene	103		99		70-130	4		20
Methyl tert butyl ether	85		85		70-130	0		20
p/m-Xylene	110		106		70-130	4		20
o-Xylene	104		101		70-130	3		20
cis-1,2-Dichloroethene	102		98		70-130	4		20
Dibromomethane	89		87		70-130	2		20
1,2,3-Trichloropropane	76		77		70-130	1		20
Styrene	102		99		70-130	3		20
Dichlorodifluoromethane	49	Q	46	Q	70-130	6		20
Acetone	68	Q	67	Q	70-130	1		20
Carbon disulfide	97		94		70-130	3		20
Methyl ethyl ketone	62	Q	65	Q	70-130	5		20
Methyl isobutyl ketone	69	Q	70		70-130	1		20
2-Hexanone	64	Q	65	Q	70-130	2		20
Bromochloromethane	97		95		70-130	2		20
Tetrahydrofuran	58	Q	63	Q	70-130	8		20

Lab Control Sample Analysis Batch Quality Control

Project Name: TUFTS STREET

Project Number: 045163

Lab Number: L2408101

Report Date: 02/21/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG1887347-3 WG1887347-4								
2,2-Dichloropropane	106		101		70-130	5		20
1,2-Dibromoethane	92		91		70-130	1		20
1,3-Dichloropropane	88		87		70-130	1		20
1,1,1,2-Tetrachloroethane	102		100		70-130	2		20
Bromobenzene	99		96		70-130	3		20
n-Butylbenzene	107		103		70-130	4		20
sec-Butylbenzene	108		103		70-130	5		20
tert-Butylbenzene	107		102		70-130	5		20
o-Chlorotoluene	95		94		70-130	1		20
p-Chlorotoluene	98		93		70-130	5		20
1,2-Dibromo-3-chloropropane	74		79		70-130	7		20
Hexachlorobutadiene	115		111		70-130	4		20
Isopropylbenzene	105		100		70-130	5		20
p-Isopropyltoluene	108		104		70-130	4		20
Naphthalene	95		91		70-130	4		20
n-Propylbenzene	104		100		70-130	4		20
1,2,3-Trichlorobenzene	103		100		70-130	3		20
1,2,4-Trichlorobenzene	109		105		70-130	4		20
1,3,5-Trimethylbenzene	102		98		70-130	4		20
1,2,4-Trimethylbenzene	99		95		70-130	4		20
Diethyl ether	89		89		70-130	0		20
Diisopropyl Ether	85		82		70-130	4		20
Ethyl-Tert-Butyl-Ether	87		86		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG1887347-3 WG1887347-4								
Tertiary-Amyl Methyl Ether	87		87		70-130	0		20
1,4-Dioxane	77		76		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	84		84		70-130
Toluene-d8	92		91		70-130
4-Bromofluorobenzene	87		87		70-130
Dibromofluoromethane	96		97		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: TUFTS STREET

Project Number: 045163

Lab Number: L2408101

Report Date: 02/21/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG1887734-3 WG1887734-4								
Methylene chloride	96		96		70-130	0		20
1,1-Dichloroethane	98		98		70-130	0		20
Chloroform	99		100		70-130	1		20
Carbon tetrachloride	99		99		70-130	0		20
1,2-Dichloropropane	92		92		70-130	0		20
Dibromochloromethane	98		101		70-130	3		20
1,1,2-Trichloroethane	90		92		70-130	2		20
Tetrachloroethene	108		108		70-130	0		20
Chlorobenzene	103		104		70-130	1		20
Trichlorofluoromethane	106		106		70-130	0		20
1,2-Dichloroethane	88		90		70-130	2		20
1,1,1-Trichloroethane	112		111		70-130	1		20
Bromodichloromethane	96		96		70-130	0		20
trans-1,3-Dichloropropene	92		93		70-130	1		20
cis-1,3-Dichloropropene	97		98		70-130	1		20
1,1-Dichloropropene	104		104		70-130	0		20
Bromoform	94		96		70-130	2		20
1,1,2,2-Tetrachloroethane	84		85		70-130	1		20
Benzene	103		104		70-130	1		20
Toluene	102		102		70-130	0		20
Ethylbenzene	105		105		70-130	0		20
Chloromethane	66	Q	65	Q	70-130	2		20
Bromomethane	108		108		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: TUFTS STREET

Project Number: 045163

Lab Number: L2408101

Report Date: 02/21/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG1887734-3 WG1887734-4								
Vinyl chloride	75		76		70-130	1		20
Chloroethane	95		95		70-130	0		20
1,1-Dichloroethene	108		107		70-130	1		20
trans-1,2-Dichloroethene	108		107		70-130	1		20
Trichloroethene	108		109		70-130	1		20
1,2-Dichlorobenzene	102		102		70-130	0		20
1,3-Dichlorobenzene	106		105		70-130	1		20
1,4-Dichlorobenzene	104		104		70-130	0		20
Methyl tert butyl ether	88		90		70-130	2		20
p/m-Xylene	109		110		70-130	1		20
o-Xylene	104		104		70-130	0		20
cis-1,2-Dichloroethene	102		103		70-130	1		20
Dibromomethane	92		93		70-130	1		20
1,2,3-Trichloropropane	81		83		70-130	2		20
Styrene	101		101		70-130	0		20
Dichlorodifluoromethane	41	Q	41	Q	70-130	0		20
Acetone	77		69	Q	70-130	11		20
Carbon disulfide	96		96		70-130	0		20
Methyl ethyl ketone	68	Q	70		70-130	3		20
Methyl isobutyl ketone	73		76		70-130	4		20
2-Hexanone	69	Q	70		70-130	1		20
Bromochloromethane	98		99		70-130	1		20
Tetrahydrofuran	64	Q	64	Q	70-130	0		20

Lab Control Sample Analysis Batch Quality Control

Project Name: TUFTS STREET

Project Number: 045163

Lab Number: L2408101

Report Date: 02/21/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG1887734-3 WG1887734-4								
2,2-Dichloropropane	105		105		70-130	0		20
1,2-Dibromoethane	95		96		70-130	1		20
1,3-Dichloropropane	90		92		70-130	2		20
1,1,1,2-Tetrachloroethane	104		105		70-130	1		20
Bromobenzene	101		100		70-130	1		20
n-Butylbenzene	108		106		70-130	2		20
sec-Butylbenzene	108		107		70-130	1		20
tert-Butylbenzene	107		106		70-130	1		20
o-Chlorotoluene	95		98		70-130	3		20
p-Chlorotoluene	99		98		70-130	1		20
1,2-Dibromo-3-chloropropane	86		87		70-130	1		20
Hexachlorobutadiene	116		115		70-130	1		20
Isopropylbenzene	104		104		70-130	0		20
p-Isopropyltoluene	109		108		70-130	1		20
Naphthalene	96		96		70-130	0		20
n-Propylbenzene	105		104		70-130	1		20
1,2,3-Trichlorobenzene	107		107		70-130	0		20
1,2,4-Trichlorobenzene	114		112		70-130	2		20
1,3,5-Trimethylbenzene	103		101		70-130	2		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
Diethyl ether	91		94		70-130	3		20
Diisopropyl Ether	86		87		70-130	1		20
Ethyl-Tert-Butyl-Ether	90		91		70-130	1		20

Lab Control Sample Analysis Batch Quality Control

Project Name: TUFTS STREET

Project Number: 045163

Lab Number: L2408101

Report Date: 02/21/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG1887734-3 WG1887734-4								
Tertiary-Amyl Methyl Ether	89		91		70-130	2		20
1,4-Dioxane	90		91		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	84		86		70-130
Toluene-d8	91		91		70-130
4-Bromofluorobenzene	85		86		70-130
Dibromofluoromethane	96		98		70-130

INORGANICS & MISCELLANEOUS

Project Name: TUFTS STREET**Project Number:** 045163**Lab Number:** L2408101**Report Date:** 02/21/24**SAMPLE RESULTS****Lab ID:** L2408101-01**Client ID:** 50TUFT-B101(0-1)**Sample Location:** SOMERVILLE, MA**Date Collected:** 02/12/24 08:30**Date Received:** 02/14/24**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.0		%	0.100	NA	1	-	02/15/24 08:23	121,2540G	ROI



Project Name: TUFTS STREET**Project Number:** 045163**Lab Number:** L2408101**Report Date:** 02/21/24**SAMPLE RESULTS****Lab ID:** L2408101-02**Client ID:** 50TUFT-B101(1-3)**Sample Location:** SOMERVILLE, MA**Date Collected:** 02/12/24 08:31**Date Received:** 02/14/24**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.7		%	0.100	NA	1	-	02/15/24 08:23	121,2540G	ROI



Project Name: TUFTS STREET**Project Number:** 045163**Lab Number:** L2408101**Report Date:** 02/21/24**SAMPLE RESULTS****Lab ID:** L2408101-03**Client ID:** 50TUFT-B101(3-5)**Sample Location:** SOMERVILLE, MA**Date Collected:** 02/12/24 08:32**Date Received:** 02/14/24**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	91.1		%	0.100	NA	1	-	02/15/24 08:23	121,2540G	ROI



Project Name: TUFTS STREET**Project Number:** 045163**Lab Number:** L2408101**Report Date:** 02/21/24**SAMPLE RESULTS****Lab ID:** L2408101-04**Client ID:** 50TUFT-B102(0-1)**Sample Location:** SOMERVILLE, MA**Date Collected:** 02/12/24 09:00**Date Received:** 02/14/24**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.6		%	0.100	NA	1	-	02/15/24 08:23	121,2540G	ROI



Project Name: TUFTS STREET**Project Number:** 045163**Lab Number:** L2408101**Report Date:** 02/21/24**SAMPLE RESULTS****Lab ID:** L2408101-05**Client ID:** 50TUFT-B102(1-3)**Sample Location:** SOMERVILLE, MA**Date Collected:** 02/12/24 09:01**Date Received:** 02/14/24**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	91.6		%	0.100	NA	1	-	02/15/24 08:23	121,2540G	ROI



Project Name: TUFTS STREET**Project Number:** 045163**Lab Number:** L2408101**Report Date:** 02/21/24**SAMPLE RESULTS****Lab ID:** L2408101-06**Client ID:** 50TUFT-B103(0-1)**Sample Location:** SOMERVILLE, MA**Date Collected:** 02/12/24 09:30**Date Received:** 02/14/24**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.1		%	0.100	NA	1	-	02/15/24 08:23	121,2540G	ROI



Project Name: TUFTS STREET**Project Number:** 045163**Lab Number:** L2408101**Report Date:** 02/21/24**SAMPLE RESULTS****Lab ID:** L2408101-07**Client ID:** 50TUFT-B103(1-3)**Sample Location:** SOMERVILLE, MA**Date Collected:** 02/12/24 09:31**Date Received:** 02/14/24**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.4		%	0.100	NA	1	-	02/15/24 08:23	121,2540G	ROI



Project Name: TUFTS STREET**Project Number:** 045163**Lab Number:** L2408101**Report Date:** 02/21/24**SAMPLE RESULTS****Lab ID:** L2408101-08**Client ID:** 50TUFT-B103(3-5)**Sample Location:** SOMERVILLE, MA**Date Collected:** 02/12/24 09:32**Date Received:** 02/14/24**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.7		%	0.100	NA	1	-	02/15/24 08:23	121,2540G	ROI



Project Name: TUFTS STREET**Project Number:** 045163**Lab Number:** L2408101**Report Date:** 02/21/24**SAMPLE RESULTS****Lab ID:** L2408101-09**Client ID:** 50TUFT-B104(0-1)**Sample Location:** SOMERVILLE, MA**Date Collected:** 02/12/24 10:00**Date Received:** 02/14/24**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.8		%	0.100	NA	1	-	02/15/24 08:23	121,2540G	ROI



Project Name: TUFTS STREET**Project Number:** 045163**Lab Number:** L2408101**Report Date:** 02/21/24**SAMPLE RESULTS****Lab ID:** L2408101-10**Client ID:** 50TUFT-B104(1-3)**Sample Location:** SOMERVILLE, MA**Date Collected:** 02/12/24 10:01**Date Received:** 02/14/24**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	79.6		%	0.100	NA	1	-	02/15/24 08:23	121,2540G	ROI



Project Name: TUFTS STREET**Project Number:** 045163**Lab Number:** L2408101**Report Date:** 02/21/24**SAMPLE RESULTS****Lab ID:** L2408101-11**Client ID:** 50TUFT-B104(3-5)**Sample Location:** SOMERVILLE, MA**Date Collected:** 02/12/24 10:02**Date Received:** 02/14/24**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.3		%	0.100	NA	1	-	02/15/24 08:23	121,2540G	ROI



Project Name: TUFTS STREET**Project Number:** 045163**Lab Number:** L2408101**Report Date:** 02/21/24**SAMPLE RESULTS****Lab ID:** L2408101-12**Client ID:** 50TUFT-B105(0-1)**Sample Location:** SOMERVILLE, MA**Date Collected:** 02/12/24 11:00**Date Received:** 02/14/24**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92.1		%	0.100	NA	1	-	02/15/24 08:23	121,2540G	ROI



Project Name: TUFTS STREET**Project Number:** 045163**Lab Number:** L2408101**Report Date:** 02/21/24**SAMPLE RESULTS****Lab ID:** L2408101-13**Client ID:** 50TUFT-B105(1-3)**Sample Location:** SOMERVILLE, MA**Date Collected:** 02/12/24 11:01**Date Received:** 02/14/24**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.8		%	0.100	NA	1	-	02/15/24 08:23	121,2540G	ROI



Project Name: TUFTS STREET
Project Number: 045163

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L2408101
Report Date: 02/21/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-13 QC Batch ID: WG1885410-1 QC Sample: L2408101-01 Client ID: 50TUFT-B101(0-1)						
Solids, Total	80.0	79.7	%	0		20

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2408101-01A	Vial MeOH preserved	A	NA		2.8	Y	Absent		MCP-8260HLW-21(14)
L2408101-01B	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-01C	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-01D	Plastic 2oz unpreserved for TS	A	NA		2.8	Y	Absent		TS(7)
L2408101-02A	Vial MeOH preserved	A	NA		2.8	Y	Absent		MCP-8260HLW-21(14)
L2408101-02B	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-02C	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-02D	Plastic 2oz unpreserved for TS	A	NA		2.8	Y	Absent		TS(7)
L2408101-03A	Vial MeOH preserved	A	NA		2.8	Y	Absent		MCP-8260HLW-21(14)
L2408101-03B	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-03C	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-03D	Plastic 2oz unpreserved for TS	A	NA		2.8	Y	Absent		TS(7)
L2408101-04A	Vial MeOH preserved	A	NA		2.8	Y	Absent		MCP-8260HLW-21(14)
L2408101-04B	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-04C	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-04D	Plastic 2oz unpreserved for TS	A	NA		2.8	Y	Absent		TS(7)
L2408101-05A	Vial MeOH preserved	A	NA		2.8	Y	Absent		MCP-8260HLW-21(14)
L2408101-05B	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-05C	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-05D	Plastic 2oz unpreserved for TS	A	NA		2.8	Y	Absent		TS(7)
L2408101-06A	Vial MeOH preserved	A	NA		2.8	Y	Absent		MCP-8260HLW-21(14)
L2408101-06B	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-06C	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)

Project Name: TUFTS STREET**Lab Number:** L2408101**Project Number:** 045163**Report Date:** 02/21/24**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2408101-06D	Plastic 2oz unpreserved for TS	A	NA		2.8	Y	Absent		TS(7)
L2408101-07A	Vial MeOH preserved	A	NA		2.8	Y	Absent		MCP-8260HLW-21(14)
L2408101-07B	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-07C	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-07D	Plastic 2oz unpreserved for TS	A	NA		2.8	Y	Absent		TS(7)
L2408101-08A	Vial MeOH preserved	A	NA		2.8	Y	Absent		MCP-8260HLW-21(14)
L2408101-08B	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-08C	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-08D	Plastic 2oz unpreserved for TS	A	NA		2.8	Y	Absent		TS(7)
L2408101-09A	Vial MeOH preserved	A	NA		2.8	Y	Absent		MCP-8260HLW-21(14)
L2408101-09B	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-09C	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-09D	Plastic 2oz unpreserved for TS	A	NA		2.8	Y	Absent		TS(7)
L2408101-10A	Vial MeOH preserved	A	NA		2.8	Y	Absent		MCP-8260HLW-21(14)
L2408101-10B	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-10C	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-10D	Plastic 2oz unpreserved for TS	A	NA		2.8	Y	Absent		TS(7)
L2408101-11A	Vial MeOH preserved	A	NA		2.8	Y	Absent		MCP-8260HLW-21(14)
L2408101-11B	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-11C	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-11D	Plastic 2oz unpreserved for TS	A	NA		2.8	Y	Absent		TS(7)
L2408101-12A	Vial MeOH preserved	A	NA		2.8	Y	Absent		MCP-8260HLW-21(14)
L2408101-12B	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-12C	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-12D	Plastic 2oz unpreserved for TS	A	NA		2.8	Y	Absent		TS(7)
L2408101-13A	Vial MeOH preserved	A	NA		2.8	Y	Absent		MCP-8260HLW-21(14)
L2408101-13B	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)
L2408101-13C	Vial water preserved	A	NA		2.8	Y	Absent	12-FEB-24 12:45	MCP-8260HLW-21(14)

Project Name: TUFTS STREET
Project Number: 045163

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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2408101-13D	Plastic 2oz unpreserved for TS	A	NA		2.8	Y	Absent		TS(7)

Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report



Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report



Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2408101
Report Date: 02/21/24

Data Qualifiers

- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: TUFTS STREET
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REFERENCES

- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 141 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA and IIB, November 2021.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

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Certification Information**The following analytes are not included in our Primary NELAP Scope of Accreditation:****Westborough Facility****EPA 624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625.1:** alpha-Terpineol**EPA 8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B**The following analytes are included in our Massachusetts DEP Scope of Accreditation****Westborough Facility:****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables).**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.****EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Chain-of-Custody Record				Laboratory: Alpha		Laboratory Job # <u>L2908101</u> (Lab use only)															
 GEI Consultants 400 Unicorn Park Drive Woburn, MA 01801 PH: 781.721.4000		Project Information						Page 1 of 2													
		Project Name: Tufts St			Project Location: Somerville, MA																
		Project Number: 045163			Project Manager: Chris Coner																
		Send Report to: cconer@geiconsultants.com labdata@geiconsultants.com			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="8">Preservative</th> </tr> <tr> <td>MeOH:H2O</td> <td>None</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				Preservative								MeOH:H2O	None			
Preservative																					
MeOH:H2O	None																				
MCP PRESUMPTIVE CERTAINTY AND MCP ANALYTICAL METHODS REQUIRED: YES NO						<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Sample Handling</th> </tr> <tr> <td>Samples Field Filtered</td> <td>YES NO NA</td> </tr> <tr> <td>Sampled Shipped With Ice</td> <td>YES NO</td> </tr> <tr> <td colspan="2">Sample Specific Remarks</td> </tr> </table>		Sample Handling		Samples Field Filtered	YES NO NA	Sampled Shipped With Ice	YES NO	Sample Specific Remarks							
Sample Handling																					
Samples Field Filtered	YES NO NA																				
Sampled Shipped With Ice	YES NO																				
Sample Specific Remarks																					
STATE AND FEDERAL REGULATORY REQUIREMENTS/REPORT LIMITS State/Federal Program: <u>MA 401WQC</u> Other <u> </u> NH RI CT NY ME MA MCP Criteria are Method 1 S-1 and GW-2/GW-3. Circle if GW-1 is required.																					
Lab Sample Number	GEI Sample ID	Collection Date Time		Matrix	No. of Bottles	Sampler(s) Initials	VOCs (g/L)	% Solids													
08101-01	50TUFT-B101(0-1)	2/12/2024	8:30	SO	4	NMT	X	X													
02	50TUFT-B101(1-3)	2/12/2024	8:31	SO	4	NMT	X	X													
03	50TUFT-B101(3-5)	2/12/2024	8:32	SO	4	NMT	X	X													
04	50TUFT-B102(0-1)	2/12/2024	9:00	SO	4	NMT	X	X													
05	50TUFT-B102(1-3)	2/12/2024	9:01	SO	4	NMT	X	X													
06	50TUFT-B103(0-1)	2/12/2024	9:30	SO	4	NMT	X	X													
07	50TUFT-B103(1-3)	2/12/2024	9:31	SO	4	NMT	X	X													
08	50TUFT-B103(3-5)	2/12/2024	9:32	SO	4	NMT	X	X													
09	50TUFT-B104(0-1)	2/12/2024	10:00	SO	4	NMT	X	X													
10	50TUFT-B104(1-3)	2/12/2024	10:01	SO	4	NMT	X	X													
11	50TUFT-B104(3-5)	2/12/2024	10:02	SO	4	NMT	X	X													
12	50TUFT-B105(0-1)	2/12/2024	11:00	SO	4	NMT	X	X													
Relinquished by: (signature)		Date:	Time:	Received by: (signature)		Turnaround Time (Business days):		Before submitting rush turnaround samples, you must notify the laboratory to confirm that the TAT can be achieved.													
1. <u>Nicholas Turiccolo</u>		2/12/2024	12:45	1. GEI Sample Fridge		Standard TAT <u>X</u> 4-Day <u> </u> 3-Day <u> </u>															
Relinquished by: (signature)		Date:	Time:	Received by: (signature)		2-Day <u> </u> 1-Day <u> </u> Other <u> </u>															
2. GEI Sample Fridge		2/14/24	12:00	2. <u>Jeffrey G...</u>																	
Relinquished by: (signature)		Date:	Time:	Received by: (signature)																	
3. <u>Jeffrey G...</u>		2/14/24	12:00	3. <u>Jeffrey G...</u> 2/14/24		Additional Requirements/Comments/Remarks:															
Relinquished by: (signature)		Date:	Time:	Received by: (signature)		VOAs frozen on 2/12/2024															
4. <u>Jeffrey G...</u>		2/14/24	16:15	4. <u>Jeffrey G...</u>																	
Relinquished by: (signature)		Date:	Time:	Received by: (signature)																	
5.				5.																	

Sample Matrix Abbreviations: SO = Soil GW = Groundwater SW = Surface Water SD = Sediment CO = Concrete PC = Paint Chip CLK = Caulk

Page 102 of 115

Method Blank Summary Form 4 Volatiles

Client : GEI Consultants
Project Name : TUFTS STREET
Lab Sample ID : WG1886042-5
Instrument ID : VOA100
Matrix : SOIL

Lab Number : L2408101
Project Number : 045163
Lab File ID : V00240215A06
Analysis Date : 02/15/24 13:52

Client Sample No.	Lab Sample ID	Analysis Date
WG1886042-3LCS	WG1886042-3	02/15/24 11:51
WG1886042-4LCSD	WG1886042-4	02/15/24 12:22
50TUFT-B103(1-3)	L2408101-07	02/15/24 20:26
50TUFT-B105(0-1)	L2408101-12	02/15/24 20:57

Method Blank Summary

Form 4

Volatiles

Client	: GEI Consultants	Lab Number	: L2408101
Project Name	: TUFTS STREET	Project Number	: 045163
Lab Sample ID	: WG1886062-5	Lab File ID	: V00240215A06
Instrument ID	: VOA100		
Matrix	: SOIL	Analysis Date	: 02/15/24 13:52

Client Sample No.	Lab Sample ID	Analysis Date
WG1886062-3LCS	WG1886062-3	02/15/24 11:51
WG1886062-4LCSD	WG1886062-4	02/15/24 12:22
50TUFT-B101(0-1)	L2408101-01	02/15/24 15:23
50TUFT-B101(1-3)	L2408101-02	02/15/24 15:54
50TUFT-B101(3-5)	L2408101-03	02/15/24 16:24
50TUFT-B102(0-1)	L2408101-04	02/15/24 16:54
50TUFT-B102(1-3)	L2408101-05	02/15/24 17:25
50TUFT-B103(3-5)	L2408101-08	02/15/24 17:55
50TUFT-B104(0-1)	L2408101-09	02/15/24 18:25
50TUFT-B104(1-3)	L2408101-10	02/15/24 18:56
50TUFT-B104(3-5)	L2408101-11	02/15/24 19:26
50TUFT-B105(1-3)	L2408101-13	02/15/24 19:56

Method Blank Summary

Form 4

Volatiles

Client	: GEI Consultants	Lab Number	: L2408101
Project Name	: TUFTS STREET	Project Number	: 045163
Lab Sample ID	: WG1887347-5	Lab File ID	: V23240220A05
Instrument ID	: VOA123		
Matrix	: SOIL	Analysis Date	: 02/20/24 10:26

Client Sample No.	Lab Sample ID	Analysis Date
WG1887347-3LCS	WG1887347-3	02/20/24 08:43
WG1887347-4LCSD	WG1887347-4	02/20/24 09:09
50TUFT-B103(0-1)	L2408101-06	02/20/24 14:19

Method Blank Summary Form 4 Volatiles

Client : GEI Consultants
Project Name : TUFTS STREET
Lab Sample ID : WG1887734-5
Instrument ID : VOA123
Matrix : SOIL

Lab Number : L2408101
Project Number : 045163
Lab File ID : V23240221A05
Analysis Date : 02/21/24 09:56

Client Sample No.	Lab Sample ID	Analysis Date
WG1887734-3LCS	WG1887734-3	02/21/24 08:39
WG1887734-4LCSD	WG1887734-4	02/21/24 09:05
50TUFT-B103(0-1)	L2408101-06D	02/21/24 12:25

Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : TUFTS STREET
 Instrument ID : VOA100
 Lab File ID : V00240215A02
 Sample No : WG1886062-2
 Channel :

Lab Number : L2408101
 Project Number : 045163
 Calibration Date : 02/15/24 11:51
 Init. Calib. Date(s) : 02/07/24 02/08/24
 Init. Calib. Times : 20:14 01:16

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	159	0
Dichlorodifluoromethane	0.319	0.199	-	37.6*	20	106	0
Chloromethane	0.487	0.328	-	32.6*	20	105	0
Vinyl chloride	0.371	0.265	-	28.6*	20	113	0
Bromomethane	0.176	0.129	-	26.7*	20	118	0
Chloroethane	0.187	0.145	-	22.5*	20	117	0
Trichlorofluoromethane	0.338	0.247	-	26.9*	20	125	0
Ethyl ether	0.105	0.091	-	13.3	20	130	0
1,1-Dichloroethene	40	27.291	-	31.8*	20	127	0
Carbon disulfide	0.84	0.567	-	32.5*	20	122	0
Methylene chloride	0.23	0.178	-	22.6*	20	121	0
Acetone	0.086	0.056	-	34.9*	20	110	0
trans-1,2-Dichloroethene	0.224	0.179	-	20.1*	20	124	0
Methyl tert-butyl ether	0.574	0.494	-	13.9	20	131	0
Diisopropyl ether	1.101	0.913	-	17.1	20	123	0
1,1-Dichloroethane	0.55	0.445	-	19.1	20	122	0
Ethyl tert-butyl ether	0.911	0.825	-	9.4	20	133	0
cis-1,2-Dichloroethene	0.267	0.223	-	16.5	20	129	0
2,2-Dichloropropane	0.344	0.298	-	13.4	20	139	0
Bromochloromethane	0.125	0.108	-	13.6	20	131	0
Chloroform	0.431	0.364	-	15.5	20	128	0
Carbon tetrachloride	40	29.31	-	26.7*	20	139	0
Tetrahydrofuran	0.09	0.059	-	34.4*	20	114	0
Dibromofluoromethane	0.275	0.25	-	9.1	20	142	0
1,1,1-Trichloroethane	0.352	0.302	-	14.2	20	135	0
2-Butanone	0.125	0.089	-	28.8*	20	118	0
1,1-Dichloropropene	0.307	0.269	-	12.4	20	138	0
Benzene	0.934	0.783	-	16.2	20	127	0
tert-Amyl methyl ether	0.606	0.567	-	6.4	20	141	0
1,2-Dichloroethane-d4	0.301	0.27	-	10.3	20	146	0
1,2-Dichloroethane	0.342	0.287	-	16.1	20	130	0
Trichloroethene	0.242	0.208	-	14	20	138	0
Dibromomethane	0.137	0.118	-	13.9	20	128	0
1,2-Dichloropropane	0.302	0.255	-	15.6	20	126	0
Bromodichloromethane	0.308	0.267*	-	13.3	20	126	0
1,4-Dioxane	0.00217	0.00189*	-	12.9	20	123	0
cis-1,3-Dichloropropene	0.362	0.333	-	8	20	130	0
Chlorobenzene-d5	1	1	-	0	20	155	0
Toluene-d8	1.383	1.273	-	8	20	142	0
Toluene	0.781	0.659	-	15.6	20	128	0
4-Methyl-2-pentanone	0.12	0.102	-	15	20	123	0
Tetrachloroethene	0.325	0.297	-	8.6	20	140	0
trans-1,3-Dichloropropene	0.418	0.384	-	8.1	20	133	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : TUFTS STREET
 Instrument ID : VOA100
 Lab File ID : V00240215A02
 Sample No : WG1886062-2
 Channel :

Lab Number : L2408101
 Project Number : 045163
 Calibration Date : 02/15/24 11:51
 Init. Calib. Date(s) : 02/07/24 02/08/24
 Init. Calib. Times : 20:14 01:16

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,1,2-Trichloroethane	0.208	0.179*	-	13.9	20	129	0
Chlorodibromomethane	0.31	0.28	-	9.7	20	131	0
1,3-Dichloropropane	0.436	0.375	-	14	20	129	0
1,2-Dibromoethane	0.252	0.223	-	11.5	20	130	0
2-Hexanone	0.224	0.174	-	22.3*	20	118	0
Chlorobenzene	0.884	0.756	-	14.5	20	129	0
Ethylbenzene	1.461	1.258	-	13.9	20	132	0
1,1,1,2-Tetrachloroethane	0.315	0.281	-	10.8	20	128	0
p/m Xylene	0.563	0.498	-	11.5	20	132	0
o Xylene	0.551	0.484	-	12.2	20	129	0
Styrene	0.901	0.81	-	10.1	20	130	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	152	0
Bromoform	0.373	0.333	-	10.7	20	131	0
Isopropylbenzene	2.707	2.418	-	10.7	20	134	0
4-Bromofluorobenzene	0.905	0.852	-	5.9	20	144	0
Bromobenzene	0.701	0.621	-	11.4	20	131	0
n-Propylbenzene	3.172	2.808	-	11.5	20	135	0
1,1,2,2-Tetrachloroethane	0.592	0.491	-	17.1	20	124	0
2-Chlorotoluene	1.899	1.662	-	12.5	20	131	0
1,3,5-Trimethylbenzene	2.325	2.087	-	10.2	20	137	0
1,2,3-Trichloropropane	0.478	0.394	-	17.6	20	126	0
4-Chlorotoluene	1.944	1.719	-	11.6	20	136	0
tert-Butylbenzene	2.015	1.79	-	11.2	20	138	0
1,2,4-Trimethylbenzene	2.268	2.039	-	10.1	20	136	0
sec-Butylbenzene	2.967	2.653	-	10.6	20	139	0
p-Isopropyltoluene	2.612	2.361	-	9.6	20	141	0
1,3-Dichlorobenzene	1.387	1.219	-	12.1	20	131	0
1,4-Dichlorobenzene	1.4	1.222	-	12.7	20	132	0
n-Butylbenzene	2.247	2.037	-	9.3	20	137	0
1,2-Dichlorobenzene	1.285	1.136	-	11.6	20	129	0
1,2-Dibromo-3-chloropropan	0.111	0.091	-	18	20	118	0
Hexachlorobutadiene	0.494	0.418	-	15.4	20	139	0
1,2,4-Trichlorobenzene	0.905	0.847	-	6.4	20	140	0
Naphthalene	2.069	1.829	-	11.6	20	127	0
1,2,3-Trichlorobenzene	0.847	0.778	-	8.1	20	135	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : TUFTS STREET
 Instrument ID : VOA100
 Lab File ID : V00240215A02
 Sample No : WG1886042-2
 Channel :

Lab Number : L2408101
 Project Number : 045163
 Calibration Date : 02/15/24 11:51
 Init. Calib. Date(s) : 02/07/24 02/08/24
 Init. Calib. Times : 20:14 01:16

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	159	0
Dichlorodifluoromethane	0.319	0.199	-	37.6*	20	106	0
Chloromethane	0.487	0.328	-	32.6*	20	105	0
Vinyl chloride	0.371	0.265	-	28.6*	20	113	0
Bromomethane	0.176	0.129	-	26.7*	20	118	0
Chloroethane	0.187	0.145	-	22.5*	20	117	0
Trichlorofluoromethane	0.338	0.247	-	26.9*	20	125	0
Ethyl ether	0.105	0.091	-	13.3	20	130	0
1,1-Dichloroethene	40	27.291	-	31.8*	20	127	0
Carbon disulfide	0.84	0.567	-	32.5*	20	122	0
Methylene chloride	0.23	0.178	-	22.6*	20	121	0
Acetone	0.086	0.056	-	34.9*	20	110	0
trans-1,2-Dichloroethene	0.224	0.179	-	20.1*	20	124	0
Methyl tert-butyl ether	0.574	0.494	-	13.9	20	131	0
Diisopropyl ether	1.101	0.913	-	17.1	20	123	0
1,1-Dichloroethane	0.55	0.445	-	19.1	20	122	0
Ethyl tert-butyl ether	0.911	0.825	-	9.4	20	133	0
cis-1,2-Dichloroethene	0.267	0.223	-	16.5	20	129	0
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Bromochloromethane	0.125	0.108	-	13.6	20	131	0
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Tetrahydrofuran	0.09	0.059	-	34.4*	20	114	0
Dibromofluoromethane	0.275	0.25	-	9.1	20	142	0
1,1,1-Trichloroethane	0.352	0.302	-	14.2	20	135	0
2-Butanone	0.125	0.089	-	28.8*	20	118	0
1,1-Dichloropropene	0.307	0.269	-	12.4	20	138	0
Benzene	0.934	0.783	-	16.2	20	127	0
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1,2-Dichloropropane	0.302	0.255	-	15.6	20	126	0
Bromodichloromethane	0.308	0.267*	-	13.3	20	126	0
1,4-Dioxane	0.00217	0.00189*	-	12.9	20	123	0
cis-1,3-Dichloropropene	0.362	0.333	-	8	20	130	0
Chlorobenzene-d5	1	1	-	0	20	155	0
Toluene-d8	1.383	1.273	-	8	20	142	0
Toluene	0.781	0.659	-	15.6	20	128	0
4-Methyl-2-pentanone	0.12	0.102	-	15	20	123	0
Tetrachloroethene	0.325	0.297	-	8.6	20	140	0
trans-1,3-Dichloropropene	0.418	0.384	-	8.1	20	133	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : TUFTS STREET
 Instrument ID : VOA100
 Lab File ID : V00240215A02
 Sample No : WG1886042-2
 Channel :

Lab Number : L2408101
 Project Number : 045163
 Calibration Date : 02/15/24 11:51
 Init. Calib. Date(s) : 02/07/24 02/08/24
 Init. Calib. Times : 20:14 01:16

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,1,2-Trichloroethane	0.208	0.179*	-	13.9	20	129	0
Chlorodibromomethane	0.31	0.28	-	9.7	20	131	0
1,3-Dichloropropane	0.436	0.375	-	14	20	129	0
1,2-Dibromoethane	0.252	0.223	-	11.5	20	130	0
2-Hexanone	0.224	0.174	-	22.3*	20	118	0
Chlorobenzene	0.884	0.756	-	14.5	20	129	0
Ethylbenzene	1.461	1.258	-	13.9	20	132	0
1,1,1,2-Tetrachloroethane	0.315	0.281	-	10.8	20	128	0
p/m Xylene	0.563	0.498	-	11.5	20	132	0
o Xylene	0.551	0.484	-	12.2	20	129	0
Styrene	0.901	0.81	-	10.1	20	130	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	152	0
Bromoform	0.373	0.333	-	10.7	20	131	0
Isopropylbenzene	2.707	2.418	-	10.7	20	134	0
4-Bromofluorobenzene	0.905	0.852	-	5.9	20	144	0
Bromobenzene	0.701	0.621	-	11.4	20	131	0
n-Propylbenzene	3.172	2.808	-	11.5	20	135	0
1,1,2,2-Tetrachloroethane	0.592	0.491	-	17.1	20	124	0
2-Chlorotoluene	1.899	1.662	-	12.5	20	131	0
1,3,5-Trimethylbenzene	2.325	2.087	-	10.2	20	137	0
1,2,3-Trichloropropane	0.478	0.394	-	17.6	20	126	0
4-Chlorotoluene	1.944	1.719	-	11.6	20	136	0
tert-Butylbenzene	2.015	1.79	-	11.2	20	138	0
1,2,4-Trimethylbenzene	2.268	2.039	-	10.1	20	136	0
sec-Butylbenzene	2.967	2.653	-	10.6	20	139	0
p-Isopropyltoluene	2.612	2.361	-	9.6	20	141	0
1,3-Dichlorobenzene	1.387	1.219	-	12.1	20	131	0
1,4-Dichlorobenzene	1.4	1.222	-	12.7	20	132	0
n-Butylbenzene	2.247	2.037	-	9.3	20	137	0
1,2-Dichlorobenzene	1.285	1.136	-	11.6	20	129	0
1,2-Dibromo-3-chloropropan	0.111	0.091	-	18	20	118	0
Hexachlorobutadiene	0.494	0.418	-	15.4	20	139	0
1,2,4-Trichlorobenzene	0.905	0.847	-	6.4	20	140	0
Naphthalene	2.069	1.829	-	11.6	20	127	0
1,2,3-Trichlorobenzene	0.847	0.778	-	8.1	20	135	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : TUFTS STREET
 Instrument ID : VOA123
 Lab File ID : V23240220A01
 Sample No : WG1887347-2
 Channel :

Lab Number : L2408101
 Project Number : 045163
 Calibration Date : 02/20/24 08:43
 Init. Calib. Date(s) : 02/07/24 02/08/24
 Init. Calib. Times : 20:15 00:33

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	110	0
Dichlorodifluoromethane	0.309	0.151	-	51.1*	20	59	0
Chloromethane	0.428	0.293	-	31.5*	20	77	0
Vinyl chloride	40	32.022	-	19.9	20	100	0
Bromomethane	0.156	0.187	-	-19.9	20	140	0
Chloroethane	0.18	0.176	-	2.2	20	112	0
Trichlorofluoromethane	0.304	0.343	-	-12.8	20	135	0
Ethyl ether	0.14	0.124	-	11.4	20	98	0
1,1-Dichloroethene	0.224	0.246	-	-9.8	20	126	0
Carbon disulfide	0.855	0.83	-	2.9	20	115	0
Methylene chloride	0.302	0.288	-	4.6	20	108	0
Acetone	40	27.01	-	32.5*	20	78	0
trans-1,2-Dichloroethene	0.272	0.293	-	-7.7	20	121	0
Methyl tert-butyl ether	0.756	0.645	-	14.7	20	94	0
Diisopropyl ether	1.212	1.026	-	15.3	20	92	0
1,1-Dichloroethane	0.556	0.541	-	2.7	20	107	0
Ethyl tert-butyl ether	1.027	0.898	-	12.6	20	95	0
cis-1,2-Dichloroethene	0.318	0.323	-	-1.6	20	111	0
2,2-Dichloropropane	0.387	0.412	-	-6.5	20	120	0
Bromochloromethane	0.157	0.153	-	2.5	20	107	0
Chloroform	0.512	0.502	-	2	20	108	0
Carbon tetrachloride	40	40.218	-	-0.5	20	131	0
Tetrahydrofuran	0.098	0.057	-	41.8*	20	72	0
Dibromofluoromethane	0.262	0.251	-	4.2	20	106	0
1,1,1-Trichloroethane	0.397	0.45	-	-13.4	20	127	0
2-Butanone	0.133	0.082	-	38.3*	20	71	0
1,1-Dichloropropene	40	42.625	-	-6.6	20	127	0
Benzene	1.072	1.105	-	-3.1	20	113	0
tert-Amyl methyl ether	0.792	0.688	-	13.1	20	95	0
1,2-Dichloroethane-d4	0.27	0.226	-	16.3	20	94	0
1,2-Dichloroethane	0.394	0.339	-	14	20	94	0
Trichloroethene	0.28	0.309	-	-10.4	20	125	0
Dibromomethane	0.174	0.155	-	10.9	20	98	0
1,2-Dichloropropane	40	36.066	-	9.8	20	102	0
Bromodichloromethane	0.397	0.37	-	6.8	20	103	0
1,4-Dioxane	0.00235	0.0018*	-	23.4*	20	82	0
cis-1,3-Dichloropropene	0.451	0.431	-	4.4	20	100	0
Chlorobenzene-d5	1	1	-	0	20	113	0
Toluene-d8	1.396	1.279	-	8.4	20	103	0
Toluene	0.932	0.958	-	-2.8	20	118	0
4-Methyl-2-pentanone	0.138	0.096	-	30.4*	20	79	0
Tetrachloroethene	40	44.318	-	-10.8	20	145	0
trans-1,3-Dichloropropene	0.54	0.485	-	10.2	20	97	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : TUFTS STREET
 Instrument ID : VOA123
 Lab File ID : V23240220A01
 Sample No : WG1887347-2
 Channel :

Lab Number : L2408101
 Project Number : 045163
 Calibration Date : 02/20/24 08:43
 Init. Calib. Date(s) : 02/07/24 02/08/24
 Init. Calib. Times : 20:15 00:33

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,1,2-Trichloroethane	0.275	0.241	-	12.4	20	98	0
Chlorodibromomethane	0.395	0.379	-	4.1	20	104	0
1,3-Dichloropropane	0.545	0.481	-	11.7	20	98	0
1,2-Dibromoethane	0.319	0.293	-	8.2	20	99	0
2-Hexanone	0.252	0.16	-	36.5*	20	70	0
Chlorobenzene	1.067	1.103	-	-3.4	20	115	0
Ethylbenzene	1.731	1.809	-	-4.5	20	120	0
1,1,1,2-Tetrachloroethane	0.398	0.407	-	-2.3	20	111	0
p/m Xylene	0.662	0.726	-	-9.7	20	123	0
o Xylene	0.672	0.701	-	-4.3	20	117	0
Styrene	1.131	1.16	-	-2.6	20	111	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	118	0
Bromoform	0.48	0.417	-	13.1	20	99	0
Isopropylbenzene	3.164	3.336	-	-5.4	20	127	0
4-Bromofluorobenzene	0.931	0.808	-	13.2	20	102	0
Bromobenzene	0.906	0.896	-	1.1	20	115	0
n-Propylbenzene	3.676	3.809	-	-3.6	20	124	0
1,1,2,2-Tetrachloroethane	0.754	0.574	-	23.9*	20	89	0
2-Chlorotoluene	2.402	2.285	-	4.9	20	112	0
1,3,5-Trimethylbenzene	2.818	2.87	-	-1.8	20	122	0
1,2,3-Trichloropropane	0.583	0.442	-	24.2*	20	89	0
4-Chlorotoluene	2.419	2.368	-	2.1	20	115	0
tert-Butylbenzene	2.348	2.51	-	-6.9	20	129	0
1,2,4-Trimethylbenzene	2.842	2.822	-	0.7	20	118	0
sec-Butylbenzene	3.386	3.668	-	-8.3	20	131	0
p-Isopropyltoluene	3.043	3.301	-	-8.5	20	130	0
1,3-Dichlorobenzene	1.69	1.756	-	-3.9	20	122	0
1,4-Dichlorobenzene	1.71	1.758	-	-2.8	20	121	0
n-Butylbenzene	2.586	2.779	-	-7.5	20	131	0
1,2-Dichlorobenzene	1.614	1.609	-	0.3	20	116	0
1,2-Dibromo-3-chloropropan	0.129	0.095	-	26.4*	20	85	0
Hexachlorobutadiene	0.659	0.758	-	-15	20	146	0
1,2,4-Trichlorobenzene	1.16	1.263	-	-8.9	20	127	0
Naphthalene	2.342	2.227	-	4.9	20	109	0
1,2,3-Trichlorobenzene	1.043	1.076	-	-3.2	20	120	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : TUFTS STREET
 Instrument ID : VOA123
 Lab File ID : V23240221A02
 Sample No : WG1887734-2
 Channel :

Lab Number : L2408101
 Project Number : 045163
 Calibration Date : 02/21/24 08:39
 Init. Calib. Date(s) : 02/07/24 02/08/24
 Init. Calib. Times : 20:15 00:33

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	105	0
Dichlorodifluoromethane	0.309	0.127	-	58.9*	20	47	0
Chloromethane	0.428	0.282	-	34.1*	20	71	0
Vinyl chloride	40	30.093	-	24.8*	20	89	0
Bromomethane	0.156	0.169	-	-8.3	20	121	0
Chloroethane	0.18	0.171	-	5	20	103	0
Trichlorofluoromethane	0.304	0.321	-	-5.6	20	120	0
Ethyl ether	0.14	0.127	-	9.3	20	96	0
1,1-Dichloroethene	0.224	0.242	-	-8	20	118	0
Carbon disulfide	0.855	0.821	-	4	20	108	0
Freon-113	0.244	0.242	-	0.8	20	120	0
Acrolein	0.044	0.033	-	25*	20	84	0
Methylene chloride	0.302	0.291	-	3.6	20	104	0
Acetone	40	30.718	-	23.2*	20	83	0
trans-1,2-Dichloroethene	0.272	0.293	-	-7.7	20	115	0
Methyl acetate	0.2	0.145	-	27.5*	20	78	0
Methyl tert-butyl ether	0.756	0.667	-	11.8	20	93	0
tert-Butyl alcohol	0.029	0.02	-	31*	20	76	0
Diisopropyl ether	1.212	1.045	-	13.8	20	89	0
1,1-Dichloroethane	0.556	0.543	-	2.3	20	102	0
Halothane	0.203	0.23	-	-13.3	20	122	0
Acrylonitrile	0.09	0.068	-	24.4*	20	82	0
Ethyl tert-butyl ether	1.027	0.919	-	10.5	20	93	0
Vinyl acetate	0.698	0.603	-	13.6	20	86	0
cis-1,2-Dichloroethene	0.318	0.325	-	-2.2	20	107	0
2,2-Dichloropropane	0.387	0.405	-	-4.7	20	113	0
Bromochloromethane	0.157	0.154	-	1.9	20	103	0
Cyclohexane	0.505	0.476	-	5.7	20	113	0
Chloroform	0.512	0.505	-	1.4	20	104	0
Ethyl acetate	0.297	0.221	-	25.6*	20	78	0
Carbon tetrachloride	40	39.44	-	1.4	20	122	0
Tetrahydrofuran	0.098	0.062	-	36.7*	20	75	0
Dibromofluoromethane	0.262	0.252	-	3.8	20	101	0
1,1,1-Trichloroethane	0.397	0.443	-	-11.6	20	119	0
2-Butanone	0.133	0.09	-	32.3*	20	74	0
1,1-Dichloropropene	40	41.608	-	-4	20	118	0
Benzene	1.072	1.105	-	-3.1	20	107	0
tert-Amyl methyl ether	0.792	0.706	-	10.9	20	93	0
1,2-Dichloroethane-d4	0.27	0.226	-	16.3	20	89	0
1,2-Dichloroethane	0.394	0.347	-	11.9	20	92	0
Methyl cyclohexane	0.456	0.44	-	3.5	20	120	0
Trichloroethene	0.28	0.302	-	-7.9	20	116	0
Dibromomethane	0.174	0.16	-	8	20	96	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : TUFTS STREET
 Instrument ID : VOA123
 Lab File ID : V23240221A02
 Sample No : WG1887734-2
 Channel :

Lab Number : L2408101
 Project Number : 045163
 Calibration Date : 02/21/24 08:39
 Init. Calib. Date(s) : 02/07/24 02/08/24
 Init. Calib. Times : 20:15 00:33

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	40	36.624	-	8.4	20	98	0
Bromodichloromethane	0.397	0.382	-	3.8	20	101	0
1,4-Dioxane	0.00235	0.00213*	-	9.4	20	93	0
cis-1,3-Dichloropropene	0.451	0.438	-	2.9	20	97	0
Chlorobenzene-d5	1	1	-	0	20	109	0
Toluene-d8	1.396	1.265	-	9.4	20	99	0
Toluene	0.932	0.948	-	-1.7	20	113	0
4-Methyl-2-pentanone	0.138	0.101	-	26.8*	20	80	0
Tetrachloroethene	40	43.072	-	-7.7	20	136	0
trans-1,3-Dichloropropene	0.54	0.494	-	8.5	20	95	0
Ethyl methacrylate	0.412	0.338	-	18	20	88	0
1,1,2-Trichloroethane	0.275	0.247	-	10.2	20	97	0
Chlorodibromomethane	0.395	0.388	-	1.8	20	102	0
1,3-Dichloropropane	0.545	0.49	-	10.1	20	96	0
1,2-Dibromoethane	0.319	0.303	-	5	20	99	0
2-Hexanone	0.252	0.174	-	31*	20	73	0
Chlorobenzene	1.067	1.101	-	-3.2	20	111	0
Ethylbenzene	1.731	1.82	-	-5.1	20	117	0
1,1,1,2-Tetrachloroethane	0.398	0.414	-	-4	20	109	0
p/m Xylene	0.662	0.723	-	-9.2	20	118	0
o Xylene	0.672	0.701	-	-4.3	20	113	0
Styrene	1.131	1.144	-	-1.1	20	106	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	114	0
Bromoform	0.48	0.451	-	6	20	103	0
Isopropylbenzene	3.164	3.309	-	-4.6	20	122	0
4-Bromofluorobenzene	0.931	0.788	-	15.4	20	96	0
Bromobenzene	0.906	0.913	-	-0.8	20	113	0
n-Propylbenzene	3.676	3.856	-	-4.9	20	122	0
1,4-Dichlorobutane	1.133	0.895	-	21*	20	88	0
1,1,2,2-Tetrachloroethane	0.754	0.636	-	15.6	20	96	0
4-Ethyltoluene	3.23	3.405	-	-5.4	20	122	0
2-Chlorotoluene	2.402	2.275	-	5.3	20	108	0
1,3,5-Trimethylbenzene	2.818	2.899	-	-2.9	20	119	0
1,2,3-Trichloropropane	0.583	0.473	-	18.9	20	92	0
trans-1,4-Dichloro-2-buten	0.248	0.185	-	25.4*	20	84	0
4-Chlorotoluene	2.419	2.399	-	0.8	20	112	0
tert-Butylbenzene	2.348	2.504	-	-6.6	20	125	0
1,2,4-Trimethylbenzene	2.842	2.858	-	-0.6	20	115	0
sec-Butylbenzene	3.386	3.645	-	-7.6	20	126	0
p-Isopropyltoluene	3.043	3.318	-	-9	20	127	0
1,3-Dichlorobenzene	1.69	1.794	-	-6.2	20	121	0
1,4-Dichlorobenzene	1.71	1.787	-	-4.5	20	119	0
p-Diethylbenzene	1.89	2.073	-	-9.7	20	128	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : TUFTS STREET
 Instrument ID : VOA123
 Lab File ID : V23240221A02
 Sample No : WG1887734-2
 Channel :

Lab Number : L2408101
 Project Number : 045163
 Calibration Date : 02/21/24 08:39
 Init. Calib. Date(s) : 02/07/24 02/08/24
 Init. Calib. Times : 20:15 00:33

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	2.586	2.799	-	-8.2	20	128	0
1,2-Dichlorobenzene	1.614	1.655	-	-2.5	20	115	0
1,2,4,5-Tetramethylbenzene	3.095	3.243	-	-4.8	20	118	0
1,2-Dibromo-3-chloropropan	0.129	0.11	-	14.7	20	96	0
1,3,5-Trichlorobenzene	1.334	1.538	-	-15.3	20	133	0
Hexachlorobutadiene	0.659	0.762	-	-15.6	20	142	0
1,2,4-Trichlorobenzene	1.16	1.318	-	-13.6	20	129	0
Naphthalene	2.342	2.244	-	4.2	20	106	0
1,2,3-Trichlorobenzene	1.043	1.121	-	-7.5	20	121	0

* Value outside of QC limits.





ANALYTICAL REPORT

Lab Number:	L2412029
Client:	GEI Consultants 400 Unicorn Park Drive Woburn, MA 01801
ATTN:	Chris Coner
Phone:	(781) 721-4000
Project Name:	TUFTS STREET
Project Number:	045163
Report Date:	03/20/24

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Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0825), DoD (L2474), FL (E87814), IL (200081), IN (C-MA-04), KY (KY98046), LA (85084), ME (MA00030), MD (350), MI (99110), NJ (MA015), NY (11627), NC (685), OH (CL106), OR (MA-0262), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #525-23-107-88708), USFWS (Permit #A24920).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2412029
Report Date: 03/20/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2412029-01	045163-103WASH-B1	AIR	SOMERVILLE, MA	03/05/24 09:56	03/06/24
L2412029-02	045163-103WASH-F1	AIR	SOMERVILLE, MA	03/05/24 10:05	03/06/24
L2412029-03	045163-103WASH-SV2	SOIL_VAPOR	SOMERVILLE, MA	03/05/24 10:58	03/06/24
L2412029-04	045163-103WASH-SV1	SOIL_VAPOR	SOMERVILLE, MA	03/05/24 11:03	03/06/24

Project Name: TUFTS STREET

Lab Number: L2412029

Project Number: 045163

Report Date: 03/20/24

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	NO
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO
For any questions answered "No", please refer to the case narrative section on the following page(s).		

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2412029
Report Date: 03/20/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2412029
Report Date: 03/20/24

Case Narrative (continued)

MCP Related Narratives

Canisters were released from the laboratory on February 29, 2024. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to questions E b/I:

All samples were analyzed for a subset of the MCP compounds per the Chain of Custody.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 03/20/24

QC OUTLIER SUMMARY REPORT

Project Name: TUFTS STREET**Lab Number:** L2412029**Project Number:** 045163**Report Date:** 03/20/24

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
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There are no QC Outliers associated with this report.

AIR

Project Name: TUFTS STREET**Project Number:** 045163**Lab Number:** L2412029**Report Date:** 03/20/24**SAMPLE RESULTS**

Lab ID: L2412029-01
 Client ID: 045163-103WASH-B1
 Sample Location: SOMERVILLE, MA

Date Collected: 03/05/24 09:56
 Date Received: 03/06/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 03/20/24 12:01
 Analyst: BJB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	0.048	0.020	--	0.325	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	104		60-140
chlorobenzene-d5	101		60-140



Project Name: TUFTS STREET**Project Number:** 045163**Lab Number:** L2412029**Report Date:** 03/20/24**SAMPLE RESULTS**

Lab ID: L2412029-02
 Client ID: 045163-103WASH-F1
 Sample Location: SOMERVILLE, MA

Date Collected: 03/05/24 10:05
 Date Received: 03/06/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 03/18/24 21:33
 Analyst: JMB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	91		60-140



Project Name: TUFTS STREET**Project Number:** 045163**Lab Number:** L2412029**Report Date:** 03/20/24**SAMPLE RESULTS**

Lab ID: L2412029-03
 Client ID: 045163-103WASH-SV2
 Sample Location: SOMERVILLE, MA

Date Collected: 03/05/24 10:58
 Date Received: 03/06/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 03/19/24 06:04
 Analyst: JMB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.565	0.020	--	2.24	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	3.07	0.020	--	12.2	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	7.00	0.020	--	37.6	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	6.03	0.020	--	40.9	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	86		60-140



Project Name: TUFTS STREET**Lab Number:** L2412029**Project Number:** 045163**Report Date:** 03/20/24**SAMPLE RESULTS**

Lab ID: L2412029-04
 Client ID: 045163-103WASH-SV1
 Sample Location: SOMERVILLE, MA

Date Collected: 03/05/24 11:03
 Date Received: 03/06/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 03/19/24 06:51
 Analyst: JMB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	0.031	0.020	--	0.210	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	86		60-140



Project Name: TUFTS STREET

Lab Number: L2412029

Project Number: 045163

Report Date: 03/20/24

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM

Analytical Date: 03/18/24 16:22

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 02-04 Batch: WG1897718-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Project Name: TUFTS STREET

Lab Number: L2412029

Project Number: 045163

Report Date: 03/20/24

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM

Analytical Date: 03/19/24 21:10

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01 Batch: WG1898209-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: TUFTS STREET

Project Number: 045163

Lab Number: L2412029

Report Date: 03/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 02-04 Batch: WG1897718-3								
Vinyl chloride	101		-		70-130	-		
1,1-Dichloroethene	108		-		70-130	-		
trans-1,2-Dichloroethene	116		-		70-130	-		
1,1-Dichloroethane	111		-		70-130	-		
cis-1,2-Dichloroethene	108		-		70-130	-		
1,1,1-Trichloroethane	110		-		70-130	-		
Trichloroethene	104		-		70-130	-		
1,1,2-Trichloroethane	99		-		70-130	-		
Tetrachloroethene	80		-		70-130	-		
1,1,2,2-Tetrachloroethane	92		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: TUFTS STREET

Project Number: 045163

Lab Number: L2412029

Report Date: 03/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01 Batch: WG1898209-3								
Vinyl chloride	104		-		70-130	-		
1,1-Dichloroethene	108		-		70-130	-		
trans-1,2-Dichloroethene	111		-		70-130	-		
1,1-Dichloroethane	111		-		70-130	-		
cis-1,2-Dichloroethene	105		-		70-130	-		
1,1,1-Trichloroethane	104		-		70-130	-		
Trichloroethene	105		-		70-130	-		
1,1,2-Trichloroethane	99		-		70-130	-		
Tetrachloroethene	87		-		70-130	-		
1,1,2,2-Tetrachloroethane	96		-		70-130	-		

Project Name: TUFTS STREET

Project Number: 045163

Serial_No:03202418:05
Lab Number: L2412029

Report Date: 03/20/24

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2412029-01	045163-103WASH-B1	01006	Flow 5	02/29/24	456369		-	-	-	Pass	3.0	3.4	13
L2412029-01	045163-103WASH-B1	3068	6.0L Can	02/29/24	456369	L2410377-05	Pass	-29.5	-6.3	-	-	-	-
L2412029-02	045163-103WASH-F1	02081	Flow 4	02/29/24	456369		-	-	-	Pass	3.0	3.5	15
L2412029-02	045163-103WASH-F1	3308	6.0L Can	02/29/24	456369	L2410377-05	Pass	-29.5	-8.3	-	-	-	-
L2412029-03	045163-103WASH-SV2	01740	Flow 1	02/29/24	456369		-	-	-	Pass	72	72	0
L2412029-03	045163-103WASH-SV2	2193	2.7L Can	02/29/24	456369	L2409217-09	Pass	-29.2	0.0	-	-	-	-
L2412029-04	045163-103WASH-SV1	02349	Flow 1	02/29/24	456369		-	-	-	Pass	72	84	15
L2412029-04	045163-103WASH-SV1	198	2.7L Can	02/29/24	456369	L2409217-09	Pass	-29.2	0.0	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2409217
Report Date: 03/20/24

Air Canister Certification Results

Lab ID: L2409217-09
Client ID: CAN 325 SHELF 2
Sample Location:

Date Collected: 02/21/24 12:00
Date Received: 02/21/24
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 02/21/24 21:45
Analyst: JFI

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2409217
Report Date: 03/20/24

Air Canister Certification Results

Lab ID: L2409217-09
Client ID: CAN 325 SHELF 2
Sample Location:

Date Collected: 02/21/24 12:00
Date Received: 02/21/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2409217
Report Date: 03/20/24

Air Canister Certification Results

Lab ID: L2409217-09
Client ID: CAN 325 SHELF 2
Sample Location:

Date Collected: 02/21/24 12:00
Date Received: 02/21/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2409217
Report Date: 03/20/24

Air Canister Certification Results

Lab ID: L2409217-09
Client ID: CAN 325 SHELF 2
Sample Location:

Date Collected: 02/21/24 12:00
Date Received: 02/21/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L2409217**Project Number:** CANISTER QC BAT**Report Date:** 03/20/24**Air Canister Certification Results**

Lab ID: L2409217-09

Date Collected: 02/21/24 12:00

Client ID: CAN 325 SHELF 2

Date Received: 02/21/24

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	85		60-140



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2409217
Report Date: 03/20/24

Air Canister Certification Results

Lab ID: L2409217-09
Client ID: CAN 325 SHELF 2
Sample Location:

Date Collected: 02/21/24 12:00
Date Received: 02/21/24
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 02/21/24 21:45
Analyst: JFI

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acrolein	ND	0.050	--	ND	0.115	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2409217
Report Date: 03/20/24

Air Canister Certification Results

Lab ID: L2409217-09
Client ID: CAN 325 SHELF 2
Sample Location:

Date Collected: 02/21/24 12:00
Date Received: 02/21/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.100	--	ND	0.518	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L2409217**Project Number:** CANISTER QC BAT**Report Date:** 03/20/24**Air Canister Certification Results****Lab ID:** L2409217-09**Date Collected:** 02/21/24 12:00**Client ID:** CAN 325 SHELF 2**Date Received:** 02/21/24**Sample Location:****Field Prep:** Not Specified**Sample Depth:**

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	78		60-140
bromochloromethane	83		60-140
chlorobenzene-d5	84		60-140



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2410377
Report Date: 03/20/24

Air Canister Certification Results

Lab ID: L2410377-05
Client ID: CAN 747 SHELF 38
Sample Location:

Date Collected: 02/27/24 09:00
Date Received: 02/27/24
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 02/27/24 21:03
Analyst: JFI

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2410377
Report Date: 03/20/24

Air Canister Certification Results

Lab ID: L2410377-05
Client ID: CAN 747 SHELF 38
Sample Location:

Date Collected: 02/27/24 09:00
Date Received: 02/27/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2410377
Report Date: 03/20/24

Air Canister Certification Results

Lab ID: L2410377-05
Client ID: CAN 747 SHELF 38
Sample Location:

Date Collected: 02/27/24 09:00
Date Received: 02/27/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2410377
Report Date: 03/20/24

Air Canister Certification Results

Lab ID: L2410377-05
Client ID: CAN 747 SHELF 38
Sample Location:

Date Collected: 02/27/24 09:00
Date Received: 02/27/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L2410377**Project Number:** CANISTER QC BAT**Report Date:** 03/20/24**Air Canister Certification Results**

Lab ID: L2410377-05

Date Collected: 02/27/24 09:00

Client ID: CAN 747 SHELF 38

Date Received: 02/27/24

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		60-140
Bromochloromethane	104		60-140
chlorobenzene-d5	99		60-140



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2410377
Report Date: 03/20/24

Air Canister Certification Results

Lab ID: L2410377-05
Client ID: CAN 747 SHELF 38
Sample Location:

Date Collected: 02/27/24 09:00
Date Received: 02/27/24
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 02/27/24 21:03
Analyst: JFI

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acrolein	ND	0.050	--	ND	0.115	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2410377
Report Date: 03/20/24

Air Canister Certification Results

Lab ID: L2410377-05
Client ID: CAN 747 SHELF 38
Sample Location:

Date Collected: 02/27/24 09:00
Date Received: 02/27/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.100	--	ND	0.518	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L2410377**Project Number:** CANISTER QC BAT**Report Date:** 03/20/24**Air Canister Certification Results**

Lab ID: L2410377-05

Date Collected: 02/27/24 09:00

Client ID: CAN 747 SHELF 38

Date Received: 02/27/24

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	105		60-140
chlorobenzene-d5	97		60-140



Project Name: TUFTS STREET
Project Number: 045163

Serial_No:03202418:05
Lab Number: L2412029
Report Date: 03/20/24

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
NA	Present/Intact

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2412029-01A	Canister - 6 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L2412029-02A	Canister - 6 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L2412029-03A	Canister - 2.7 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L2412029-04A	Canister - 2.7 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)

Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2412029
Report Date: 03/20/24

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report



Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2412029
Report Date: 03/20/24

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report



Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2412029
Report Date: 03/20/24

Data Qualifiers

- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: TUFTS STREET
Project Number: 045163

Lab Number: L2412029
Report Date: 03/20/24

REFERENCES

- 101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 20

Published Date: 6/16/2023 4:52:28 PM

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Certification Information**The following analytes are not included in our Primary NELAP Scope of Accreditation:****Westborough Facility****EPA 624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625.1:** alpha-Terpineol**EPA 8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B**The following analytes are included in our Massachusetts DEP Scope of Accreditation****Westborough Facility:****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables).**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



AIR ANALYSIS

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: **GEI Consultants**
Address: **400 Unicorn Park Dr.**
Woburn MA 01801
Phone: **781-721-4000**

Fax:

Email: **labdata@geiconsultants.com**

☐ These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☒

PAGE 1 OF 1

Project Information

Project Name: **Tufts Street**
Project Location: **Somerville, MA**
Project #: **045163**
Project Manager: **Chris Coner**
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due:

Time:

Date Rec'd in Lab:

3/6/24

Report Information - Data Deliverables

☐ FAX
☒ ADEx

Criteria Checker:

(Default based on Regulatory Criteria Indicated)

Other Formats:

☒ EMAIL (standard pdf report)
☐ Additional Deliverables:

Report to: (if different than Project Manager)

ALPHA Job #:

12412029

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Res / Comm

ANALYSIS

☐ TO-15
☐ TO-15 SIM
☐ APH
☐ Fixed Gases
☐ Sulfides & Mercaptans by TO-15

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION						Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SI	APH _{Sub}	Fixed G	Sulfides &		Sample	Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum														
12029-01	045163-103Wash-B1	3/5/24	09:56	09:56	-30.74	-7.87	IA	DJM	6L	3068	01006	X							See attached list of analytes ↓	
02	045163-103Wash-F1	3/5/24	10:05	10:05	-30.66	-9.26	IA	DJM	6L	3308	02081	X								
03	045163-103Wash-SV2	3/5/24	10:28	10:58	-30.65	-1.48	SV	NMT	2.7L	2193	01740	X								
04	045163-103Wash-SV1	3/5/24	10:25	11:03	-30.28	-1.65	SV	NMT	2.7L	198	02349	X								
																		</		

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:

Date/Time

Received By:

Date/Time:

Nicholas Luoccolo
GEI Field Room
James Montan
AAL

3/5/24 11:45
3/6/24 12:02
3/6/24 1805
24/10/1920

GEI Field Room
John A. Mac
John A. Mac

3/5/24 11:45
3/6/24 1202
3/6/24 1805

3/6/24

Tufts Street IA/SV Analyte List

- Vinyl chloride
- 1,1-Dichloroethene
- trans-1,2-Dichloroethane
- 1,1-Dichloroethane
- cis-1,2-Dichloroethene
- 1,1,1-Trichloroethane
- Trichloroethene
- 1,1,2-Trichloroethane
- Tetrachloroethene
- 1,1,2,2-Tetrachloroethane



ANALYTICAL REPORT

Lab Number:	L2417821
Client:	GEI Consultants 400 Unicorn Park Drive Woburn, MA 01801
ATTN:	Chris Coner
Phone:	(781) 721-4000
Project Name:	50 TUFTS STREET
Project Number:	045163
Report Date:	04/10/24

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2417821
Report Date: 04/10/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2417821-01	045163-MW107	WATER	SOMERVILLE, MASSACHUSETTS	04/02/24 10:10	04/02/24
L2417821-02	045163-MW112A	WATER	SOMERVILLE, MASSACHUSETTS	04/02/24 11:55	04/02/24
L2417821-03	045163-MW118S	WATER	SOMERVILLE, MASSACHUSETTS	04/02/24 10:00	04/02/24
L2417821-04	045163-MW118D	WATER	SOMERVILLE, MASSACHUSETTS	04/02/24 10:20	04/02/24
L2417821-05	045163-MW117D	WATER	SOMERVILLE, MASSACHUSETTS	04/02/24 10:02	04/02/24
L2417821-06	045163-MW117S	WATER	SOMERVILLE, MASSACHUSETTS	04/02/24 10:05	04/02/24
L2417821-07	045163-MW117T	WATER	SOMERVILLE, MASSACHUSETTS	04/02/24 11:20	04/02/24
L2417821-08	045163-MW118T	WATER	SOMERVILLE, MASSACHUSETTS	04/02/24 12:20	04/02/24
L2417821-09	045163-MW119S	WATER	SOMERVILLE, MASSACHUSETTS	04/02/24 12:40	04/02/24
L2417821-10	045163-MW119T	WATER	SOMERVILLE, MASSACHUSETTS	04/02/24 12:50	04/02/24
L2417821-11	045163-GEO-1	WATER	SOMERVILLE, MASSACHUSETTS	04/02/24 14:10	04/02/24
L2417821-12	045163-MW108	WATER	SOMERVILLE, MASSACHUSETTS	04/02/24 14:15	04/02/24

Project Name: 50 TUFTS STREET

Lab Number: L2417821

Project Number: 045163

Report Date: 04/10/24

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO
For any questions answered "No", please refer to the case narrative section on the following page(s).		

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2417821
Report Date: 04/10/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2417821
Report Date: 04/10/24

Case Narrative (continued)

Report Submission

April 10, 2024: This final report includes the results of all requested analyses.

April 09, 2024: This is a preliminary report.

The analysis of Sulfide was subcontracted. A copy of the laboratory report is included as an addendum. Please note: This data is only available in PDF format and is not available on Data Merger.

MCP Related Narratives

Volatile Organics

L2417821-02D and -03: Initial calibration utilized a quadratic fit for: trans-1,3-dichloropropene, trichloroethene, cis-1,3-dichloropropene, bromoform

L2417821-02D and -03: A copy of the continuing calibration standard is included as an addendum to this report.

In reference to question G:

L2417821-02D: One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

L2417821-01 and -04 through -12: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: cis-1,2-dichloroethene (0.1956), bromochloromethane (0.0877), bromodichloromethane (0.2628), 1,4-dioxane (0.0008), cis-1,3-dichloropropene (0.2962), 1,1,2-trichloroethane (0.1701), 1,2-dibromoethane (0.1851)

Average Response Factor: cis-1,2-dichloroethene, bromochloromethane, trichloroethene, bromodichloromethane, 1,4-dioxane, cis-1,3-dichloropropene, 1,1,2-trichloroethane, 1,2-dibromoethane

L2417821-02D and -03: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: 1,4-dioxane (0.0015)

Average Response Factor: 1,4-dioxane

Verification: Carbon disulfide (65%)

L2417821-01 and -04 through -12: The associated continuing calibration standard is outside the acceptance

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2417821
Report Date: 04/10/24

Case Narrative (continued)

criteria for several compounds; however, it is within overall method allowances. Associated results are considered to be biased high if the %D is negative and biased low if the %D is positive. A copy of the continuing calibration standard is included as an addendum to this report.

Total Metals

In reference to question I:

All samples were analyzed for a subset of MCP analytes per client request.

Non-MCP Related Narratives

Chlorine, Total Residual

The WG1904314-4 MS recovery, performed on L2417821-02, is outside the acceptance criteria for chlorine, total residual (0%); however, the associated LCS recovery is within criteria. No further action was taken.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

Tiffani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative

Date: 04/10/24

QC OUTLIER SUMMARY REPORT

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2417821

Report Date: 04/10/24

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
MCP Volatile Organics - Westborough Lab								
8260D	Batch QC	WG1905830-3	1,4-Dioxane	LCS	140	70-130	01,04-12	potential high bias
8260D	Batch QC (L2417821-11)	WG1905830-6	cis-1,3-Dichloropropene	MS	66	70-130	01,04-12	potential low bias
8260D	Batch QC (L2417821-11)	WG1905830-6	Methyl isobutyl ketone	MS	69	70-130	01,04-12	potential low bias
8260D	Batch QC (L2417821-11)	WG1905830-6	2-Hexanone	MS	67	70-130	01,04-12	potential low bias
8260D	Batch QC (L2417821-11)	WG1905830-6	1,2,4-Trichlorobenzene	MS	68	70-130	01,04-12	potential low bias
8260D	Batch QC (L2417821-11)	WG1905830-6	Ethyl-Tert-Butyl-Ether	MS	68	70-130	01,04-12	potential low bias
8260D	Batch QC (L2417821-11)	WG1905830-6	Tertiary-Amyl Methyl Ether	MS	67	70-130	01,04-12	potential low bias
8260D	Batch QC (L2417821-11)	WG1905830-6	1,4-Dioxane	MS	132	70-130	01,04-12	potential high bias
General Chemistry - Westborough Lab								
4500CL-D	Batch QC (L2417821-02)	WG1904314-4	Chlorine, Total Residual	MS	0	80-120	02	potential low bias

ORGANICS

VOLATILES

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-01
 Client ID: 045163-MW107
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 10:10
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/05/24 07:00

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	1.1		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-01
 Client ID: 045163-MW107
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 10:10
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-01**Date Collected:** 04/02/24 10:10**Client ID:** 045163-MW107**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	111		70-130

Project Name: 50 TUFTS STREET**Project Number:** 045163**Lab Number:** L2417821**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-02
 Client ID: 045163-MW112A
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 11:55
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 117,-

Analytical Date: 04/04/24 09:16

Analyst: APR

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	4.64		ug/l	3.00	--	1	A
Ethene	3.91		ug/l	3.00	--	1	A
Ethane	ND		ug/l	3.00	--	1	A

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-02 D
 Client ID: 045163-MW112A
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 11:55
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/08/24 06:28

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	--	2.5
1,1-Dichloroethane	28		ug/l	2.5	--	2.5
Chloroform	ND		ug/l	2.5	--	2.5
Carbon tetrachloride	ND		ug/l	2.5	--	2.5
1,2-Dichloropropane	ND		ug/l	2.5	--	2.5
Dibromochloromethane	ND		ug/l	2.5	--	2.5
1,1,2-Trichloroethane	ND		ug/l	2.5	--	2.5
Tetrachloroethene	370		ug/l	2.5	--	2.5
Chlorobenzene	ND		ug/l	2.5	--	2.5
Trichlorofluoromethane	ND		ug/l	5.0	--	2.5
1,2-Dichloroethane	ND		ug/l	2.5	--	2.5
1,1,1-Trichloroethane	3.5		ug/l	2.5	--	2.5
Bromodichloromethane	ND		ug/l	2.5	--	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.0	--	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.0	--	2.5
1,3-Dichloropropene, Total	ND		ug/l	1.0	--	2.5
1,1-Dichloropropene	ND		ug/l	5.0	--	2.5
Bromoform	ND		ug/l	5.0	--	2.5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5
Benzene	ND		ug/l	1.2	--	2.5
Toluene	ND		ug/l	2.5	--	2.5
Ethylbenzene	ND		ug/l	2.5	--	2.5
Chloromethane	ND		ug/l	5.0	--	2.5
Bromomethane	ND		ug/l	5.0	--	2.5
Vinyl chloride	12		ug/l	2.5	--	2.5
Chloroethane	ND		ug/l	5.0	--	2.5
1,1-Dichloroethene	46		ug/l	2.5	--	2.5
trans-1,2-Dichloroethene	ND		ug/l	2.5	--	2.5

Project Name: 50 TUFTS STREET

Lab Number: L2417821

Project Number: 045163

Report Date: 04/10/24

SAMPLE RESULTS

Lab ID: L2417821-02 D
 Client ID: 045163-MW112A
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 11:55
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	84		ug/l	2.5	--	2.5
1,2-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,3-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,4-Dichlorobenzene	ND		ug/l	2.5	--	2.5
Methyl tert butyl ether	5.6		ug/l	5.0	--	2.5
p/m-Xylene	ND		ug/l	5.0	--	2.5
o-Xylene	ND		ug/l	2.5	--	2.5
Xylenes, Total	ND		ug/l	2.5	--	2.5
cis-1,2-Dichloroethene	100		ug/l	2.5	--	2.5
1,2-Dichloroethene, Total	100		ug/l	2.5	--	2.5
Dibromomethane	ND		ug/l	5.0	--	2.5
1,2,3-Trichloropropane	ND		ug/l	5.0	--	2.5
Styrene	ND		ug/l	2.5	--	2.5
Dichlorodifluoromethane	ND		ug/l	5.0	--	2.5
Acetone	ND		ug/l	12	--	2.5
Carbon disulfide	ND		ug/l	5.0	--	2.5
Methyl ethyl ketone	ND		ug/l	12	--	2.5
Methyl isobutyl ketone	ND		ug/l	12	--	2.5
2-Hexanone	ND		ug/l	12	--	2.5
Bromochloromethane	ND		ug/l	5.0	--	2.5
Tetrahydrofuran	ND		ug/l	5.0	--	2.5
2,2-Dichloropropane	ND		ug/l	5.0	--	2.5
1,2-Dibromoethane	ND		ug/l	5.0	--	2.5
1,3-Dichloropropane	ND		ug/l	5.0	--	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5
Bromobenzene	ND		ug/l	5.0	--	2.5
n-Butylbenzene	ND		ug/l	5.0	--	2.5
sec-Butylbenzene	ND		ug/l	5.0	--	2.5
tert-Butylbenzene	ND		ug/l	5.0	--	2.5
o-Chlorotoluene	ND		ug/l	5.0	--	2.5
p-Chlorotoluene	ND		ug/l	5.0	--	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	--	2.5
Hexachlorobutadiene	ND		ug/l	1.5	--	2.5
Isopropylbenzene	ND		ug/l	5.0	--	2.5
p-Isopropyltoluene	ND		ug/l	5.0	--	2.5
Naphthalene	ND		ug/l	5.0	--	2.5
n-Propylbenzene	ND		ug/l	5.0	--	2.5

Project Name: 50 TUFTS STREET

Lab Number: L2417821

Project Number: 045163

Report Date: 04/10/24

SAMPLE RESULTS

Lab ID: L2417821-02 D
 Client ID: 045163-MW112A
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 11:55
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	5.0	--	2.5
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	2.5
1,3,5-Trimethylbenzene	ND		ug/l	5.0	--	2.5
1,2,4-Trimethylbenzene	ND		ug/l	5.0	--	2.5
Diethyl ether	ND		ug/l	5.0	--	2.5
Diisopropyl Ether	ND		ug/l	5.0	--	2.5
Ethyl-Tert-Butyl-Ether	ND		ug/l	5.0	--	2.5
Tertiary-Amyl Methyl Ether	ND		ug/l	5.0	--	2.5
1,4-Dioxane	ND		ug/l	620	--	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	98		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-03
 Client ID: 045163-MW118S
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 10:00
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/08/24 06:01

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-03
 Client ID: 045163-MW118S
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 10:00
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	2.8		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET

Lab Number: L2417821

Project Number: 045163

Report Date: 04/10/24

SAMPLE RESULTS

Lab ID: L2417821-03

Date Collected: 04/02/24 10:00

Client ID: 045163-MW118S

Date Received: 04/02/24

Sample Location: SOMERVILLE, MASSACHUSETTS

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	119		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-04
 Client ID: 045163-MW118D
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 10:20
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/05/24 07:23

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	22		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	2.2		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-04
 Client ID: 045163-MW118D
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 10:20
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	2.5		ug/l	1.0	--	1
1,2-Dichloroethene, Total	2.5		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-04**Date Collected:** 04/02/24 10:20**Client ID:** 045163-MW118D**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	110		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-05
 Client ID: 045163-MW117D
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 10:02
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/05/24 07:45

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-05
 Client ID: 045163-MW117D
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 10:02
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-05**Date Collected:** 04/02/24 10:02**Client ID:** 045163-MW117D**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	112		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-06
 Client ID: 045163-MW117S
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 10:05
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/05/24 08:08

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-06**Date Collected:** 04/02/24 10:05**Client ID:** 045163-MW117S**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-06**Date Collected:** 04/02/24 10:05**Client ID:** 045163-MW117S**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	112		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-07
 Client ID: 045163-MW117T
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 11:20
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 141,8260D
 Analytical Date: 04/05/24 08:31
 Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET

Lab Number: L2417821

Project Number: 045163

Report Date: 04/10/24

SAMPLE RESULTS

Lab ID: L2417821-07

Date Collected: 04/02/24 11:20

Client ID: 045163-MW117T

Date Received: 04/02/24

Sample Location: SOMERVILLE, MASSACHUSETTS

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-07**Date Collected:** 04/02/24 11:20**Client ID:** 045163-MW117T**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	111		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-08
 Client ID: 045163-MW118T
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 12:20
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 141,8260D
 Analytical Date: 04/05/24 08:54
 Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	9.6		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-08
 Client ID: 045163-MW118T
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 12:20
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-08**Date Collected:** 04/02/24 12:20**Client ID:** 045163-MW118T**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	112		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-09
 Client ID: 045163-MW119S
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 12:40
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/05/24 09:17

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-09
 Client ID: 045163-MW119S
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 12:40
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-09**Date Collected:** 04/02/24 12:40**Client ID:** 045163-MW119S**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	112		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-10
 Client ID: 045163-MW119T
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 12:50
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/05/24 09:40

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	2.2		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	5.2		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET

Lab Number: L2417821

Project Number: 045163

Report Date: 04/10/24

SAMPLE RESULTS

Lab ID: L2417821-10
 Client ID: 045163-MW119T
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 12:50
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	3.5		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-10**Date Collected:** 04/02/24 12:50**Client ID:** 045163-MW119T**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	111		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-11
 Client ID: 045163-GEO-1
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 14:10
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 141,8260D
 Analytical Date: 04/05/24 06:14
 Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	18		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-11
 Client ID: 045163-GEO-1
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 14:10
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	1.8		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-11**Date Collected:** 04/02/24 14:10**Client ID:** 045163-GEO-1**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	109		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-12
 Client ID: 045163-MW108
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 14:15
 Date Received: 04/02/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/05/24 10:02

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-12**Date Collected:** 04/02/24 14:15**Client ID:** 045163-MW108**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2417821-12**Date Collected:** 04/02/24 14:15**Client ID:** 045163-MW108**Date Received:** 04/02/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	113		70-130

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2417821
Report Date: 04/10/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 117,-
Analytical Date: 04/04/24 08:13
Analyst: APR

Parameter	Result	Qualifier	Units	RL	MDL
Dissolved Gases by GC - Mansfield Lab for sample(s): 02 Batch: WG1904720-3					
Methane	ND		ug/l	3.00	-- A
Ethene	ND		ug/l	3.00	-- A
Ethane	ND		ug/l	3.00	-- A

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2417821
Report Date: 04/10/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 04/05/24 05:52
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01,04-12 Batch: WG1905830-5					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.40	--
cis-1,3-Dichloropropene	ND		ug/l	0.40	--
1,3-Dichloropropene, Total	ND		ug/l	0.40	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2417821
Report Date: 04/10/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 04/05/24 05:52
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01,04-12 Batch: WG1905830-5					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
Methyl ethyl ketone	ND		ug/l	5.0	--
Methyl isobutyl ketone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2417821
Report Date: 04/10/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 04/05/24 05:52
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01,04-12 Batch: WG1905830-5					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Diethyl ether	ND		ug/l	2.0	--
Diisopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	110		70-130

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2417821
Report Date: 04/10/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 04/08/24 04:38
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02-03 Batch: WG1906247-5					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.40	--
cis-1,3-Dichloropropene	ND		ug/l	0.40	--
1,3-Dichloropropene, Total	ND		ug/l	0.40	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2417821
Report Date: 04/10/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 04/08/24 04:38
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02-03 Batch: WG1906247-5					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
Methyl ethyl ketone	ND		ug/l	5.0	--
Methyl isobutyl ketone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2417821
Report Date: 04/10/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 04/08/24 04:38
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02-03 Batch: WG1906247-5					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Diethyl ether	ND		ug/l	2.0	--
Diisopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	117		70-130

Lab Control Sample Analysis Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2417821

Report Date: 04/10/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Dissolved Gases by GC - Mansfield Lab Associated sample(s): 02 Batch: WG1904720-2									
Methane	103		-		80-120	-		25	A
Ethene	112		-		80-120	-		25	A
Ethane	110		-		80-120	-		25	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2417821

Report Date: 04/10/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,04-12 Batch: WG1905830-3 WG1905830-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	94		95		70-130	1		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	93		96		70-130	3		20
1,2-Dichloropropane	86		87		70-130	1		20
Dibromochloromethane	86		85		70-130	1		20
1,1,2-Trichloroethane	87		86		70-130	1		20
Tetrachloroethene	93		89		70-130	4		20
Chlorobenzene	93		92		70-130	1		20
Trichlorofluoromethane	100		100		70-130	0		20
1,2-Dichloroethane	93		95		70-130	2		20
1,1,1-Trichloroethane	99		100		70-130	1		20
Bromodichloromethane	91		94		70-130	3		20
trans-1,3-Dichloropropene	84		83		70-130	1		20
cis-1,3-Dichloropropene	82		84		70-130	2		20
1,1-Dichloropropene	94		93		70-130	1		20
Bromoform	82		82		70-130	0		20
1,1,2,2-Tetrachloroethane	90		88		70-130	2		20
Benzene	93		94		70-130	1		20
Toluene	100		94		70-130	6		20
Ethylbenzene	97		96		70-130	1		20
Chloromethane	92		87		70-130	6		20
Bromomethane	100		100		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2417821

Report Date: 04/10/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,04-12 Batch: WG1905830-3 WG1905830-4								
Vinyl chloride	90		86		70-130	5		20
Chloroethane	85		91		70-130	7		20
1,1-Dichloroethene	100		100		70-130	0		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	95		93		70-130	2		20
1,2-Dichlorobenzene	93		91		70-130	2		20
1,3-Dichlorobenzene	93		92		70-130	1		20
1,4-Dichlorobenzene	94		92		70-130	2		20
Methyl tert butyl ether	90		92		70-130	2		20
p/m-Xylene	95		95		70-130	0		20
o-Xylene	90		90		70-130	0		20
cis-1,2-Dichloroethene	99		99		70-130	0		20
Dibromomethane	93		93		70-130	0		20
1,2,3-Trichloropropane	89		87		70-130	2		20
Styrene	95		95		70-130	0		20
Dichlorodifluoromethane	98		98		70-130	0		20
Acetone	92		93		70-130	1		20
Carbon disulfide	99		95		70-130	4		20
Methyl ethyl ketone	98		82		70-130	18		20
Methyl isobutyl ketone	79		73		70-130	8		20
2-Hexanone	81		77		70-130	5		20
Bromochloromethane	100		99		70-130	1		20
Tetrahydrofuran	95		93		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2417821

Report Date: 04/10/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,04-12 Batch: WG1905830-3 WG1905830-4								
2,2-Dichloropropane	93		95		70-130	2		20
1,2-Dibromoethane	88		87		70-130	1		20
1,3-Dichloropropane	87		88		70-130	1		20
1,1,1,2-Tetrachloroethane	81		80		70-130	1		20
Bromobenzene	92		90		70-130	2		20
n-Butylbenzene	100		97		70-130	3		20
sec-Butylbenzene	99		94		70-130	5		20
tert-Butylbenzene	95		95		70-130	0		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	82		76		70-130	8		20
Hexachlorobutadiene	100		92		70-130	8		20
Isopropylbenzene	94		94		70-130	0		20
p-Isopropyltoluene	96		94		70-130	2		20
Naphthalene	88		84		70-130	5		20
n-Propylbenzene	100		98		70-130	2		20
1,2,3-Trichlorobenzene	89		86		70-130	3		20
1,2,4-Trichlorobenzene	87		84		70-130	4		20
1,3,5-Trimethylbenzene	95		94		70-130	1		20
1,2,4-Trimethylbenzene	96		96		70-130	0		20
Diethyl ether	88		90		70-130	2		20
Diisopropyl Ether	87		90		70-130	3		20
Ethyl-Tert-Butyl-Ether	79		80		70-130	1		20

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 50 TUFTS STREET**Project Number:** 045163**Lab Number:** L2417821**Report Date:** 04/10/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,04-12 Batch: WG1905830-3 WG1905830-4								
Tertiary-Amyl Methyl Ether	78		79		70-130	1		20
1,4-Dioxane	140	Q	128		70-130	9		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		98		70-130
Toluene-d8	97		95		70-130
4-Bromofluorobenzene	98		99		70-130
Dibromofluoromethane	101		101		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2417821

Report Date: 04/10/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-03 Batch: WG1906247-3 WG1906247-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	96		97		70-130	1		20
1,2-Dichloropropane	98		96		70-130	2		20
Dibromochloromethane	94		92		70-130	2		20
1,1,2-Trichloroethane	95		90		70-130	5		20
Tetrachloroethene	100		99		70-130	1		20
Chlorobenzene	97		96		70-130	1		20
Trichlorofluoromethane	110		110		70-130	0		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	100		100		70-130	0		20
Bromodichloromethane	100		100		70-130	0		20
trans-1,3-Dichloropropene	93		90		70-130	3		20
cis-1,3-Dichloropropene	95		94		70-130	1		20
1,1-Dichloropropene	100		100		70-130	0		20
Bromoform	90		88		70-130	2		20
1,1,2,2-Tetrachloroethane	94		89		70-130	5		20
Benzene	100		100		70-130	0		20
Toluene	98		96		70-130	2		20
Ethylbenzene	100		99		70-130	1		20
Chloromethane	110		110		70-130	0		20
Bromomethane	82		89		70-130	8		20

Lab Control Sample Analysis Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2417821

Report Date: 04/10/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-03 Batch: WG1906247-3 WG1906247-4								
Vinyl chloride	100		100		70-130	0		20
Chloroethane	99		100		70-130	1		20
1,1-Dichloroethene	100		110		70-130	10		20
trans-1,2-Dichloroethene	100		96		70-130	4		20
Trichloroethene	95		97		70-130	2		20
1,2-Dichlorobenzene	97		94		70-130	3		20
1,3-Dichlorobenzene	97		95		70-130	2		20
1,4-Dichlorobenzene	100		94		70-130	6		20
Methyl tert butyl ether	94		92		70-130	2		20
p/m-Xylene	100		95		70-130	5		20
o-Xylene	95		95		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	100		100		70-130	0		20
1,2,3-Trichloropropane	92		90		70-130	2		20
Styrene	95		95		70-130	0		20
Dichlorodifluoromethane	110		110		70-130	0		20
Acetone	100		100		70-130	0		20
Carbon disulfide	100		110		70-130	10		20
Methyl ethyl ketone	87		93		70-130	7		20
Methyl isobutyl ketone	90		88		70-130	2		20
2-Hexanone	92		90		70-130	2		20
Bromochloromethane	97		100		70-130	3		20
Tetrahydrofuran	100		98		70-130	2		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2417821

Report Date: 04/10/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-03 Batch: WG1906247-3 WG1906247-4								
2,2-Dichloropropane	110		110		70-130	0		20
1,2-Dibromoethane	99		95		70-130	4		20
1,3-Dichloropropane	95		94		70-130	1		20
1,1,1,2-Tetrachloroethane	92		90		70-130	2		20
Bromobenzene	100		96		70-130	4		20
n-Butylbenzene	100		98		70-130	2		20
sec-Butylbenzene	100		98		70-130	2		20
tert-Butylbenzene	100		97		70-130	3		20
o-Chlorotoluene	100		98		70-130	2		20
p-Chlorotoluene	100		98		70-130	2		20
1,2-Dibromo-3-chloropropane	92		86		70-130	7		20
Hexachlorobutadiene	100		99		70-130	1		20
Isopropylbenzene	99		97		70-130	2		20
p-Isopropyltoluene	99		98		70-130	1		20
Naphthalene	96		91		70-130	5		20
n-Propylbenzene	100		98		70-130	2		20
1,2,3-Trichlorobenzene	98		94		70-130	4		20
1,2,4-Trichlorobenzene	96		93		70-130	3		20
1,3,5-Trimethylbenzene	100		99		70-130	1		20
1,2,4-Trimethylbenzene	100		98		70-130	2		20
Diethyl ether	96		93		70-130	3		20
Diisopropyl Ether	97		94		70-130	3		20
Ethyl-Tert-Butyl-Ether	89		87		70-130	2		20

Lab Control Sample Analysis Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2417821

Report Date: 04/10/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-03 Batch: WG1906247-3 WG1906247-4								
Tertiary-Amyl Methyl Ether	90		88		70-130	2		20
1,4-Dioxane	116		120		70-130	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	100		98		70-130
Toluene-d8	99		100		70-130
4-Bromofluorobenzene	104		103		70-130
Dibromofluoromethane	99		102		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2417821

Report Date: 04/10/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,04-12 QC Batch ID: WG1905830-6 WG1905830-7 QC Sample: L2417821-11 Client ID: 045163-GEO-1												
Methylene chloride	ND	10	9.2	92		10	100		70-130	8		20
1,1-Dichloroethane	ND	10	8.8	88		9.5	95		70-130	8		20
Chloroform	ND	10	9.5	95		10	100		70-130	5		20
Carbon tetrachloride	ND	10	9.3	93		10	100		70-130	7		20
1,2-Dichloropropane	ND	10	7.5	75		8.4	84		70-130	11		20
Dibromochloromethane	ND	10	8.0	80		8.7	87		70-130	8		20
1,1,2-Trichloroethane	ND	10	8.0	80		8.9	89		70-130	11		20
Tetrachloroethene	18	10	27	90		31	130		70-130	14		20
Chlorobenzene	ND	10	8.0	80		9.1	91		70-130	13		20
Trichlorofluoromethane	ND	10	11	110		12	120		70-130	9		20
1,2-Dichloroethane	ND	10	9.0	90		9.5	95		70-130	5		20
1,1,1-Trichloroethane	ND	10	10	100		11	110		70-130	10		20
Bromodichloromethane	ND	10	8.7	87		9.6	96		70-130	10		20
trans-1,3-Dichloropropene	ND	10	7.1	71		7.9	79		70-130	11		20
cis-1,3-Dichloropropene	ND	10	6.6	66	Q	7.4	74		70-130	11		20
1,1-Dichloropropene	ND	10	8.4	84		9.3	93		70-130	10		20
Bromoform	ND	10	7.6	76		7.8	78		70-130	3		20
1,1,2,2-Tetrachloroethane	ND	10	8.4	84		9.0	90		70-130	7		20
Benzene	ND	10	8.4	84		9.3	93		70-130	10		20
Toluene	ND	10	8.4	84		9.6	96		70-130	13		20
Ethylbenzene	ND	10	8.3	83		9.5	95		70-130	13		20
Chloromethane	ND	10	8.6	86		9.3	93		70-130	8		20
Bromomethane	ND	10	9.3	93		10	100		70-130	7		20

Matrix Spike Analysis**Batch Quality Control****Project Name:** 50 TUFTS STREET**Project Number:** 045163**Lab Number:** L2417821**Report Date:** 04/10/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,04-12 QC Batch ID: WG1905830-6 WG1905830-7 QC Sample: L2417821-11 Client ID: 045163-GEO-1												
Vinyl chloride	ND	10	8.1	81		9.2	92		70-130	13		20
Chloroethane	ND	10	8.4	84		9.4	94		70-130	11		20
1,1-Dichloroethene	ND	10	9.9	99		11	110		70-130	11		20
trans-1,2-Dichloroethene	ND	10	9.1	91		10	100		70-130	9		20
Trichloroethene	1.8	10	11	92		12	102		70-130	9		20
1,2-Dichlorobenzene	ND	10	7.8	78		8.7	87		70-130	11		20
1,3-Dichlorobenzene	ND	10	8.0	80		8.8	88		70-130	10		20
1,4-Dichlorobenzene	ND	10	7.9	79		8.9	89		70-130	12		20
Methyl tert butyl ether	ND	10	8.6	86		9.2	92		70-130	7		20
p/m-Xylene	ND	20	16	80		19	95		70-130	17		20
o-Xylene	ND	20	16	80		18	90		70-130	12		20
cis-1,2-Dichloroethene	ND	10	8.8	88		9.9	99		70-130	12		20
Dibromomethane	ND	10	9.0	90		9.6	96		70-130	6		20
1,2,3-Trichloropropane	ND	10	8.4	84		8.6	86		70-130	2		20
Styrene	ND	20	16	80		19	95		70-130	17		20
Dichlorodifluoromethane	ND	10	9.9	99		11	110		70-130	11		20
Acetone	ND	10	11	110		11	110		70-130	0		20
Carbon disulfide	ND	10	8.8	88		9.9	99		70-130	12		20
Methyl ethyl ketone	ND	10	9.3	93		9.3	93		70-130	0		20
Methyl isobutyl ketone	ND	10	6.9	69	Q	7.4	74		70-130	7		20
2-Hexanone	ND	10	6.7	67	Q	7.3	73		70-130	9		20
Bromochloromethane	ND	10	9.1	91		9.8	98		70-130	7		20
Tetrahydrofuran	ND	10	9.0	90		9.2	92		70-130	2		20

Matrix Spike Analysis**Batch Quality Control****Project Name:** 50 TUFTS STREET**Project Number:** 045163**Lab Number:** L2417821**Report Date:** 04/10/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,04-12 QC Batch ID: WG1905830-6 WG1905830-7 QC Sample: L2417821-11 Client ID: 045163-GEO-1												
2,2-Dichloropropane	ND	10	7.4	74		8.3	83		70-130	11		20
1,2-Dibromoethane	ND	10	7.9	79		8.5	85		70-130	7		20
1,3-Dichloropropane	ND	10	7.9	79		8.8	88		70-130	11		20
1,1,1,2-Tetrachloroethane	ND	10	7.4	74		8.2	82		70-130	10		20
Bromobenzene	ND	10	7.6	76		8.6	86		70-130	12		20
n-Butylbenzene	ND	10	8.2	82		9.3	93		70-130	13		20
sec-Butylbenzene	ND	10	8.2	82		9.1	91		70-130	10		20
tert-Butylbenzene	ND	10	7.8	78		8.8	88		70-130	12		20
o-Chlorotoluene	ND	10	8.4	84		9.5	95		70-130	12		20
p-Chlorotoluene	ND	10	8.3	83		9.4	94		70-130	12		20
1,2-Dibromo-3-chloropropane	ND	10	7.8	78		8.0	80		70-130	3		20
Hexachlorobutadiene	ND	10	8.2	82		8.5	85		70-130	4		20
Isopropylbenzene	ND	10	7.6	76		8.7	87		70-130	13		20
p-Isopropyltoluene	ND	10	7.7	77		8.7	87		70-130	12		20
Naphthalene	ND	10	7.3	73		7.8	78		70-130	7		20
n-Propylbenzene	ND	10	8.2	82		9.3	93		70-130	13		20
1,2,3-Trichlorobenzene	ND	10	7.6	76		8.1	81		70-130	6		20
1,2,4-Trichlorobenzene	ND	10	6.8	68	Q	7.6	76		70-130	11		20
1,3,5-Trimethylbenzene	ND	10	7.8	78		8.9	89		70-130	13		20
1,2,4-Trimethylbenzene	ND	10	7.8	78		8.9	89		70-130	13		20
Diethyl ether	ND	10	8.3	83		8.9	89		70-130	7		20
Diisopropyl Ether	ND	10	7.6	76		8.5	85		70-130	11		20
Ethyl-Tert-Butyl-Ether	ND	10	6.8	68	Q	7.4	74		70-130	8		20

Matrix Spike Analysis*Batch Quality Control***Project Name:** 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,04-12 QC Batch ID: WG1905830-6 WG1905830-7 QC Sample: L2417821-11 Client ID: 045163-GEO-1												
Tertiary-Amyl Methyl Ether	ND	10	6.7	67	Q	7.3	73		70-130	9		20
1,4-Dioxane	ND	500	660	132	Q	550	110		70-130	18		20

<i>Surrogate</i>	<i>MS % Recovery</i>	<i>Qualifier</i>	<i>MSD % Recovery</i>	<i>Qualifier</i>	<i>Acceptance Criteria</i>
1,2-Dichloroethane-d4	115		108		70-130
4-Bromofluorobenzene	93		94		70-130
Dibromofluoromethane	108		104		70-130
Toluene-d8	95		95		70-130

METALS

Project Name: 50 TUFTS STREET**Lab Number:** L2417821**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2417821-02

Date Collected: 04/02/24 11:55

Client ID: 045163-MW112A

Date Received: 04/02/24

Sample Location: SOMERVILLE, MASSACHUSETTS

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Manganese, Total	2.02		mg/l	0.0100	--	1	04/05/24 15:42	04/08/24 21:18	EPA 3005A	97,6010D	JTS



Project Name: 50 TUFTS STREET

Lab Number: L2417821

Project Number: 045163

Report Date: 04/10/24

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab for sample(s): 02 Batch: WG1905240-1										
Manganese, Total	ND		mg/l	0.0100	--	1	04/05/24 15:42	04/08/24 20:59	97,6010D	JTS

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2417821

Report Date: 04/10/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG1905240-2 WG1905240-3								
Manganese, Total	97		103		80-120	6		20

INORGANICS & MISCELLANEOUS

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2417821

Report Date: 04/10/24

SAMPLE RESULTS

Lab ID: L2417821-02

Client ID: 045163-MW112A

Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 11:55

Date Received: 04/02/24

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	245.		mg CaCO3/L	2.00	NA	1	-	04/08/24 08:22	121,2320B	MKT
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	04/03/24 11:30	121,4500CL-D	JBB
Chloride	640		mg/l	10	--	10	-	04/04/24 22:53	1,9251	TLH
Nitrogen, Nitrate	0.207		mg/l	0.100	--	1	-	04/03/24 04:57	121,4500NO3-F	KAF
Nitrogen, Nitrate/Nitrite	0.21		mg/l	0.10	--	1	-	04/03/24 04:57	121,4500NO3-F	KAF
Total Nitrogen	ND		mg/l	0.30	--	1	-	04/09/24 16:00	107,-	MRM
Nitrogen, Total Kjeldahl	ND		mg/l	0.300	--	1	04/05/24 23:30	04/08/24 17:39	121,4500NH3-H	JRO
Sulfate	78.		mg/l	25	--	2.5	04/09/24 14:21	04/09/24 14:21	1,9038	SAD
Total Organic Carbon	ND		mg/l	0.50	--	1	-	04/04/24 02:59	1,9060A	DEW
Surfactants, MBAS	ND		mg/l	0.050	--	1	04/03/24 04:45	04/03/24 08:49	121,5540C	CAR
Iron, Ferrous	ND		mg/l	0.50	--	1	-	04/03/24 11:26	121,3500FE-B	JBB



Project Name: 50 TUFTS STREET

Lab Number: L2417821

Project Number: 045163

Report Date: 04/10/24

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1904071-1										
Nitrogen, Nitrate	ND		mg/l	0.100	--	1	-	04/03/24 02:58	121,4500NO3-F	KAF
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1904072-1										
Nitrogen, Nitrate/Nitrite	ND		mg/l	0.10	--	1	-	04/03/24 02:58	121,4500NO3-F	KAF
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1904076-1										
Surfactants, MBAS	ND		mg/l	0.050	--	1	04/03/24 04:45	04/03/24 08:47	121,5540C	CAR
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1904308-1										
Iron, Ferrous	ND		mg/l	0.50	--	1	-	04/03/24 11:26	121,3500FE-B	JBB
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1904314-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	04/03/24 11:30	121,4500CL-D	JBB
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1904564-1										
Total Organic Carbon	ND		mg/l	0.50	--	1	-	04/04/24 02:59	1,9060A	DEW
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1904965-1										
Chloride	ND		mg/l	1.0	--	1	-	04/04/24 21:47	1,9251	TLH
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1905420-1										
Nitrogen, Total Kjeldahl	ND		mg/l	0.300	--	1	04/05/24 23:30	04/08/24 17:26	121,4500NH3-H	JRO
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1906077-1										
Alkalinity, Total	ND		mg CaCO3/L	2.00	NA	1	-	04/08/24 08:22	121,2320B	MKT
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1906408-1										
Sulfate	ND		mg/l	10	--	1	04/09/24 14:21	04/09/24 14:21	1,9038	SAD



Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2417821

Report Date: 04/10/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1904071-2								
Nitrogen, Nitrate	101		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1904072-2								
Nitrogen, Nitrate/Nitrite	102		-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1904076-2								
Surfactants, MBAS	100		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1904308-2								
Iron, Ferrous	102		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1904314-2								
Chlorine, Total Residual	100		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1904564-2								
Total Organic Carbon	97		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1904965-2								
Chloride	100		-		90-110	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2417821

Report Date: 04/10/24

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1905420-2					
Nitrogen, Total Kjeldahl	96	-	78-122	-	
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1906077-2					
Alkalinity, Total	106	-	90-110	-	10
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1906408-2					
Sulfate	100	-	90-110	-	

Matrix Spike Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2417821

Report Date: 04/10/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1904071-4 QC Sample: L2417821-02 Client ID: 045163-MW112A												
Nitrogen, Nitrate	0.207	4	4.25	101		-	-		83-113	-		17
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1904072-4 QC Sample: L2417821-02 Client ID: 045163-MW112A												
Nitrogen, Nitrate/Nitrite	0.21	4	4.2	100		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1904308-4 QC Sample: L2417821-02 Client ID: 045163-MW112A												
Iron, Ferrous	ND	1	1.0	101		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1904314-4 QC Sample: L2417821-02 Client ID: 045163-MW112A												
Chlorine, Total Residual	ND	0.25	ND	0	Q	-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1906408-4 QC Sample: L2417821-02 Client ID: 045163-MW112A												
Sulfate	78	100	180	100		-	-		55-147	-		14

Lab Duplicate Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2417821

Report Date: 04/10/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1904071-3 QC Sample: L2417821-02 Client ID: 045163-MW112A						
Nitrogen, Nitrate	0.207	0.206	mg/l	0		17
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1904072-3 QC Sample: L2417821-02 Client ID: 045163-MW112A						
Nitrogen, Nitrate/Nitrite	0.21	0.20	mg/l	5		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1904308-3 QC Sample: L2417821-02 Client ID: 045163-MW112A						
Iron, Ferrous	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1904314-3 QC Sample: L2417821-02 Client ID: 045163-MW112A						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1906408-3 QC Sample: L2417821-02 Client ID: 045163-MW112A						
Sulfate	78	74	mg/l	5		14

Project Name: 50 TUFTS STREET
Project Number: 045163

Serial_No:04102412:33
Lab Number: L2417821
Report Date: 04/10/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler **Custody Seal**
A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2417821-01A	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-01B	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-01C	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-02A	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-02B	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-02C	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-02D	Vial H2SO4 preserved	A	NA		3.9	Y	Absent		TOC-9060(28)
L2417821-02E	Vial H2SO4 preserved	A	NA		3.9	Y	Absent		TOC-9060(28)
L2417821-02F	20ml Vial HCl preserved	A	NA		3.9	Y	Absent		DISSGAS(14)
L2417821-02G	20ml Vial HCl preserved	A	NA		3.9	Y	Absent		DISSGAS(14)
L2417821-02H	Plastic 250ml unpreserved/No Headspace	A	NA		3.9	Y	Absent		ALK-T-2320(14)
L2417821-02I	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	3.9	Y	Absent		SUB-SULFIDE()
L2417821-02J	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	3.9	Y	Absent		SUB-SULFIDE()
L2417821-02K	Plastic 500ml H2SO4 preserved	A	<2	<2	3.9	Y	Absent		TKN-4500(28),NO3/NO2-4500(28),TNITROGEN(28)
L2417821-02L	Plastic 250ml HNO3 preserved	A	<2	<2	3.9	Y	Absent		MCP-MN-6010T-10(180)
L2417821-02M	Plastic 950ml unpreserved	A	7	7	3.9	Y	Absent		CL-9251(28),SO4-9038(28),NO3-4500(2),TRC-4500(1),MBAS-5540(2),FERROUS(1)
L2417821-02N	Plastic 950ml unpreserved	A	7	7	3.9	Y	Absent		CL-9251(28),SO4-9038(28),NO3-4500(2),TRC-4500(1),MBAS-5540(2),FERROUS(1)
L2417821-03A	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-03B	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-03C	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-04A	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-04B	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)

Project Name: 50 TUFTS STREET
Project Number: 045163

Serial_No:04102412:33
Lab Number: L2417821
Report Date: 04/10/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2417821-04C	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-05A	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-05B	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-05C	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-06A	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-06B	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-06C	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-07A	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-07B	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-07C	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-08A	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-08B	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-08C	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-09A	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-09B	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-09C	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-10A	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-10B	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-10C	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-11A	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-11A1	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-11A2	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-11B	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-11B1	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-11B2	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-11C	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-11C1	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-11C2	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)

Project Name: 50 TUFTS STREET
Project Number: 045163

Serial_No:04102412:33
Lab Number: L2417821
Report Date: 04/10/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2417821-12A	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-12B	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)
L2417821-12C	Vial HCl preserved	A	NA		3.9	Y	Absent		MCP-8260-21(14)

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2417821
Report Date: 04/10/24

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report



Project Name: 50 TUFTS STREET
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Lab Number: L2417821
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Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report



Project Name: 50 TUFTS STREET
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Data Qualifiers

- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2417821
Report Date: 04/10/24

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010; WSC-CAM-IIIA and IIID, January 2024; WSC-CAM-IIIB and VA, February 2024; and WSC-CAM-VB and VC, April 2024.
- 107 Alpha Analytical - In-house calculation method.
- 117 Technical Guidance for the Natural Attenuation Indicators: Methane, Ethane, and Ethene, EPA-NE, Revision 1, February 21, 2002 and Sample Preparation & Calculations for Dissolved Gas Analysis in Water Samples using a GC Headspace Equilibration Technique, EPA RSKSOP-175, Revision 2, May 2004.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 141 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA and IIB, November 2021.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624.1: m/p-xylene, o-xylene, Naphthalene

EPA 625.1: alpha-Terpineol

EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270E: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables).

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522, EPA 537.1.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Chain-of-Custody Record				Laboratory: Alpha				Laboratory Job # <u>62417821</u> (Lab use only)																								
 GEI Consultants 400 Unicorn Park Drive Woburn, MA 01801 PH: 781.721.4000				Project Information								Page 1 of 1																				
				Project Name: 50 Tufts Street				Project Location: Somerville, Massachusetts																								
				Project Number: 045163				Project Manager: Chris Coner cconer@geiconsultants.com																								
				Send Report to: Molly Forrest, Chris Coner labdata@geiconsultants.com				Preservative <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>HCl</td><td>HCl</td><td>None</td><td>NaOH & Zn Acetate</td><td>H3PO4</td><td>HNO3</td><td>H2SO4</td><td></td><td></td><td></td> </tr> </table>					HCl	HCl	None	NaOH & Zn Acetate	H3PO4	HNO3	H2SO4													
HCl	HCl	None	NaOH & Zn Acetate	H3PO4	HNO3	H2SO4																										
MCP PRESUMPTIVE CERTAINTY AND MCP ANALYTICAL METHODS REQUIRED: YES NO				<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg);">VOCs 8260</td> <td rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg);">Methane, Ethane, Ethene</td> <td rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg);">Alkalinity, Cr, TRCl-, Fe II, N, NO3, SO4, Surfactants</td> <td rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg);">Sulfide</td> <td rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg);">TOC</td> <td rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg);">Manganese</td> <td rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg);">NO2 & NO3 as Nitrogen</td> <td colspan="3"></td> </tr> <tr><td colspan="3"></td></tr> <tr><td colspan="3"></td></tr> <tr><td colspan="3"></td></tr> </table>								VOCs 8260	Methane, Ethane, Ethene	Alkalinity, Cr, TRCl-, Fe II, N, NO3, SO4, Surfactants	Sulfide	TOC	Manganese	NO2 & NO3 as Nitrogen													Sample Handling Samples Field Filtered YES NO NA Sampled Shipped With Ice YES NO	
VOCs 8260	Methane, Ethane, Ethene	Alkalinity, Cr, TRCl-, Fe II, N, NO3, SO4, Surfactants	Sulfide																TOC	Manganese	NO2 & NO3 as Nitrogen											
STATE AND FEDERAL REGULATORY REQUIREMENTS/REPORT LIMITS State/Federal Program: MA 401WQC Other _____ NH RI CT NY ME MA MCP Criteria are Method 1 S-1 and GW-2/GW-3. Circle if GW-1 is required.																																
Lab Sample Number	GEI Sample ID	Collection		Matrix	No. of Bottles	Sampler(s) Initials	Sample Specific Remarks																									
		Date	Time																													
17821-01	045163-MW107	4/2/24	10:10	GW	3	NMT	X																									
-02	045163-MW112A		11:55		14	NMT	X	X	X	X	X	X	X																			
-03	045163-MW118S		10:00		3	CLN	X																									
-04	045163-MW118D		10:20		3	CLN	X																									
-05	045163-MW117D		10:02		3	CMG	X																									
-06	045163-MW117S		10:05		3	CMG	X																									
-07	045163-MW117T		11:20		3	CMG	X																									
-08	045163-MW118T		12:20		3	CLN	X																									
-09	045163-MW119S		12:40		3	CMG	X																									
-10	045163-MW119T		12:50		3	CMG	X																									
-11	045163-MWGE01		14:10		9	CMG	X											MS/MSD														
-12	045163-MW108		14:15		3	NMT	X																									
Relinquished by sampler: (signature)		Date:	Time:	Received by: (signature)		Turnaround Time (Business days): Standard-Day <u>X</u> 4-Day _____ 3-Day _____ 2-Day _____ 1-Day _____ Other _____						Before submitting rush turnaround samples, you must notify the laboratory to confirm that the TAT can be achieved.																				
1. Nicholas Troccoli		4/2/24	14:34	1. Ye Nany AAL																												
Relinquished by: (signature)		Date:	Time:	Received by: (signature)		Additional Requirements/Comments/Remarks:																										
2. Ye Nany AAL		4/2/24	18:05	2. [Signature]																												
Relinquished by: (signature)		Date:	Time:	Received by: (signature)																												
3.				3.																												
Relinquished by: (signature)		Date:	Time:	Received by: (signature)																												
4.				4.																												
Relinquished by: (signature)		Date:	Time:	Received by: (signature)																												
5.				5.																												

Sample Matrix Abbreviations: SO = Soil GW = Groundwater SW = Surface Water SD = Sediment CO = Concrete PC = Paint Chip CLK = Caulk

Method Blank Summary

Form 4

Volatiles

Client	: GEI Consultants	Lab Number	: L2417821
Project Name	: 50 TUFTS STREET	Project Number	: 045163
Lab Sample ID	: WG1905830-5	Lab File ID	: VQ240405A05
Instrument ID	: QUIMBY		
Matrix	: WATER	Analysis Date	: 04/05/24 05:52

Client Sample No.	Lab Sample ID	Analysis Date
WG1905830-3LCS	WG1905830-3	04/05/24 04:21
WG1905830-4LCSD	WG1905830-4	04/05/24 04:43
045163-GEO-1	L2417821-11	04/05/24 06:14
045163-MW107	L2417821-01	04/05/24 07:00
045163-MW118D	L2417821-04	04/05/24 07:23
045163-MW117D	L2417821-05	04/05/24 07:45
045163-MW117S	L2417821-06	04/05/24 08:08
045163-MW117T	L2417821-07	04/05/24 08:31
045163-MW118T	L2417821-08	04/05/24 08:54
045163-MW119S	L2417821-09	04/05/24 09:17
045163-MW119T	L2417821-10	04/05/24 09:40
045163-MW108	L2417821-12	04/05/24 10:02
045163-GEO-1MS	WG1905830-6	04/05/24 14:36
045163-GEO-1MSD	WG1905830-7	04/05/24 14:59

Method Blank Summary Form 4 Volatiles

Client	: GEI Consultants	Lab Number	: L2417821
Project Name	: 50 TUFTS STREET	Project Number	: 045163
Lab Sample ID	: WG1906247-5	Lab File ID	: J240408A04
Instrument ID	: JACK2		
Matrix	: WATER	Analysis Date	: 04/08/24 04:38

Client Sample No.	Lab Sample ID	Analysis Date
WG1906247-3LCS	WG1906247-3	04/08/24 03:16
WG1906247-4LCSD	WG1906247-4	04/08/24 03:44
045163-MW118S	L2417821-03	04/08/24 06:01
045163-MW112A	L2417821-02D	04/08/24 06:28

Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : QUIMBY
 Lab File ID : VQ240405A01
 Sample No : WG1905830-2
 Channel :

Lab Number : L2417821
 Project Number : 045163
 Calibration Date : 04/05/24 04:21
 Init. Calib. Date(s) : 02/22/24 02/22/24
 Init. Calib. Times : 04:41 07:20

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	67	0
Dichlorodifluoromethane	0.215	0.211	-	1.9	20	68	0
Chloromethane	0.275	0.253	-	8	20	62	0
Vinyl chloride	0.235	0.211	-	10.2	20	62	0
Bromomethane	0.094	0.094	-	0	20	71	0
Chloroethane	0.124	0.106	-	14.5	20	57	0
Trichlorofluoromethane	0.228	0.231	-	-1.3	20	68	0
Ethyl ether	0.083	0.073	-	12	20	60	0
1,1-Dichloroethene	0.138	0.14	-	-1.4	20	69	0
Carbon disulfide	0.405	0.401	-	1	20	67	0
Freon-113	0.144	0.142	-	1.4	20	67	0
Methylene chloride	0.156	0.157	-	-0.6	20	68	0
Acetone	10	9.252	-	7.5	20	61	0
trans-1,2-Dichloroethene	0.15	0.156	-	-4	20	72	0
Methyl acetate	0.095	0.084	-	11.6	20	61	0
Methyl tert-butyl ether	0.403	0.363	-	9.9	20	61	0
tert-Butyl alcohol	50	58.125	-	-16.3	20	82	0
Diisopropyl ether	0.7	0.609	-	13	20	60	0
1,1-Dichloroethane	0.38	0.358	-	5.8	20	63	0
Halothane	0.134	0.127	-	5.2	20	65	0
Acrylonitrile	10	9.72	-	2.8	20	65	-0.01
Ethyl tert-butyl ether	0.614	0.486	-	20.8*	20	54	0
Vinyl acetate	0.395	0.344	-	12.9	20	59	0
cis-1,2-Dichloroethene	0.189	0.187*	-	1.1	20	67	0
2,2-Dichloropropane	0.299	0.278	-	7	20	63	0
Bromochloromethane	0.085	0.085*	-	0	20	66	-0.01
Cyclohexane	0.371	0.341	-	8.1	20	62	0
Chloroform	0.305	0.305	-	0	20	67	0
Ethyl acetate	0.134	0.118	-	11.9	20	59	-0.01
Carbon tetrachloride	0.245	0.228	-	6.9	20	63	0
Tetrahydrofuran	10	9.514	-	4.9	20	63	0
Dibromofluoromethane	0.259	0.261	-	-0.8	20	66	0
1,1,1-Trichloroethane	0.276	0.274	-	0.7	20	67	0
2-Butanone	10	9.853	-	1.5	20	66	-0.01
1,1-Dichloropropene	0.24	0.225	-	6.2	20	62	0
Benzene	0.704	0.653	-	7.2	20	64	0
tert-Amyl methyl ether	0.446	0.349	-	21.7*	20	54	0
1,2-Dichloroethane-d4	0.324	0.329	-	-1.5	20	65	0
1,2-Dichloroethane	0.258	0.241	-	6.6	20	62	0
Methyl cyclohexane	0.289	0.252	-	12.8	20	61	0
Trichloroethene	0.182	0.173*	-	4.9	20	68	0
Dibromomethane	0.096	0.09	-	6.3	20	62	0
1,2-Dichloropropane	0.208	0.178	-	14.4	20	57	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : QUIMBY
 Lab File ID : VQ240405A01
 Sample No : WG1905830-2
 Channel :

Lab Number : L2417821
 Project Number : 045163
 Calibration Date : 04/05/24 04:21
 Init. Calib. Date(s) : 02/22/24 02/22/24
 Init. Calib. Times : 04:41 07:20

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Bromodichloromethane	0.245	0.224*	-	8.6	20	63	0
1,4-Dioxane	0.00078	0.0011*	-	-41*	20	88	0
cis-1,3-Dichloropropene	0.291	0.24*	-	17.5	20	57	0
Chlorobenzene-d5	1	1	-	0	20	66	0
Toluene-d8	1.349	1.304	-	3.3	20	64	0
Toluene	0.577	0.577	-	0	20	67	0
4-Methyl-2-pentanone	0.067	0.053	-	20.9*	20	56	0
Tetrachloroethene	0.233	0.217	-	6.9	20	62	0
trans-1,3-Dichloropropene	0.344	0.287*	-	16.6	20	55	0
Ethyl methacrylate	0.229	0.179	-	21.8*	20	52	0
1,1,2-Trichloroethane	0.16	0.14*	-	12.5	20	59	0
Chlorodibromomethane	0.223	0.192*	-	13.9	20	58	0
1,3-Dichloropropane	0.332	0.29	-	12.7	20	57	0
1,2-Dibromoethane	0.185	0.162*	-	12.4	20	59	0
2-Hexanone	0.117	0.095	-	18.8	20	54	0
Chlorobenzene	0.637	0.593	-	6.9	20	61	0
Ethylbenzene	1.092	1.061	-	2.8	20	64	0
1,1,1,2-Tetrachloroethane	0.239	0.193	-	19.2	20	55	0
p/m Xylene	0.437	0.419	-	4.1	20	63	0
o Xylene	0.428	0.396	-	7.5	20	60	0
Styrene	0.699	0.651	-	6.9	20	60	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	64	0
Bromoform	0.243	0.2	-	17.7	20	56	0
Isopropylbenzene	1.993	1.869	-	6.2	20	60	0
4-Bromofluorobenzene	0.947	0.929	-	1.9	20	63	0
Bromobenzene	0.487	0.446	-	8.4	20	60	0
n-Propylbenzene	2.283	2.278	-	0.2	20	64	0
1,4-Dichlorobutane	0.7	0.603	-	13.9	20	57	0
1,1,2,2-Tetrachloroethane	0.404	0.366	-	9.4	20	59	0
4-Ethyltoluene	2.024	1.971	-	2.6	20	62	0
2-Chlorotoluene	1.64	1.654	-	-0.9	20	66	0
1,3,5-Trimethylbenzene	1.742	1.657	-	4.9	20	61	0
1,2,3-Trichloropropane	0.326	0.29	-	11	20	58	0
trans-1,4-Dichloro-2-buten	0.156	0.126	-	19.2	20	53	0
4-Chlorotoluene	1.477	1.494	-	-1.2	20	66	0
tert-Butylbenzene	1.409	1.345	-	4.5	20	61	0
1,2,4-Trimethylbenzene	1.693	1.635	-	3.4	20	61	0
sec-Butylbenzene	2.013	1.99	-	1.1	20	63	0
p-Isopropyltoluene	1.754	1.694	-	3.4	20	61	0
1,3-Dichlorobenzene	0.958	0.888	-	7.3	20	60	0
1,4-Dichlorobenzene	0.956	0.901	-	5.8	20	61	0
p-Diethylbenzene	1.065	0.98	-	8	20	60	0
n-Butylbenzene	1.429	1.448	-	-1.3	20	66	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : QUIMBY
 Lab File ID : VQ240405A01
 Sample No : WG1905830-2
 Channel :

Lab Number : L2417821
 Project Number : 045163
 Calibration Date : 04/05/24 04:21
 Init. Calib. Date(s) : 02/22/24 02/22/24
 Init. Calib. Times : 04:41 07:20

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichlorobenzene	0.904	0.843	-	6.7	20	60	0
1,2,4,5-Tetramethylbenzene	1.756	1.563	-	11	20	58	0
1,2-Dibromo-3-chloropropan	0.064	0.052	-	18.8	20	53	0
1,3,5-Trichlorobenzene	0.669	0.629	-	6	20	62	0
Hexachlorobutadiene	0.191	0.195	-	-2.1	20	69	0
1,2,4-Trichlorobenzene	0.613	0.535	-	12.7	20	58	0
Naphthalene	1.384	1.211	-	12.5	20	56	0
1,2,3-Trichlorobenzene	0.564	0.503	-	10.8	20	58	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : JACK2
 Lab File ID : J240408A01
 Sample No : WG1906247-2
 Channel :

Lab Number : L2417821
 Project Number : 045163
 Calibration Date : 04/08/24 03:16
 Init. Calib. Date(s) : 04/02/24 04/02/24
 Init. Calib. Times : 05:39 08:52

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	112	0
Dichlorodifluoromethane	0.428	0.457	-	-6.8	20	113	0
Chloromethane	0.456	0.496	-	-8.8	20	114	0
Vinyl chloride	0.575	0.583	-	-1.4	20	111	0
Bromomethane	0.3	0.246	-	18	20	105	0
Chloroethane	0.371	0.366	-	1.3	20	106	0
Trichlorofluoromethane	0.51	0.543	-	-6.5	20	115	0
Ethyl ether	0.143	0.137	-	4.2	20	112	0
1,1-Dichloroethene	0.318	0.328	-	-3.1	20	115	0
Carbon disulfide	0.993	1.042	-	-4.9	20	117	0
Freon-113	0.334	0.336	-	-0.6	20	116	0
Iodomethane	10	7.804	-	22*	20	98	0
Acrolein	0.04	0.038	-	5	20	128	0
Methylene chloride	0.338	0.345	-	-2.1	20	117	0
Acetone	10	10.276	-	-2.8	20	120	0
trans-1,2-Dichloroethene	0.341	0.357	-	-4.7	20	117	0
Methyl acetate	0.197	0.179	-	9.1	20	112	0
Methyl tert-butyl ether	0.786	0.741	-	5.7	20	112	0
tert-Butyl alcohol	0.026	0.025	-	3.8	20	125	0
Diisopropyl ether	1.082	1.053	-	2.7	20	116	0
1,1-Dichloroethane	0.7	0.728	-	-4	20	118	0
Halothane	0.26	0.263	-	-1.2	20	112	0
Acrylonitrile	0.094	0.092	-	2.1	20	114	0
Ethyl tert-butyl ether	0.98	0.876	-	10.6	20	115	0
Vinyl acetate	10	9.52	-	4.8	20	129	0
cis-1,2-Dichloroethene	0.387	0.388	-	-0.3	20	115	0
2,2-Dichloropropane	0.546	0.58	-	-6.2	20	121	0
Bromochloromethane	0.164	0.159	-	3	20	111	0
Cyclohexane	0.652	0.676	-	-3.7	20	114	0
Chloroform	0.628	0.641	-	-2.1	20	117	0
Ethyl acetate	0.256	0.247	-	3.5	20	116	0
Carbon tetrachloride	10	9.602	-	4	20	117	0
Tetrahydrofuran	0.096	0.096	-	0	20	116	0
Dibromofluoromethane	0.278	0.276	-	0.7	20	111	0
1,1,1-Trichloroethane	0.545	0.562	-	-3.1	20	116	0
2-Butanone	0.115	0.1	-	13	20	111	0
1,1-Dichloropropene	0.461	0.459	-	0.4	20	111	0
Benzene	1.326	1.333	-	-0.5	20	113	0
tert-Amyl methyl ether	0.814	0.731	-	10.2	20	114	0
1,2-Dichloroethane-d4	0.341	0.341	-	0	20	115	0
1,2-Dichloroethane	0.453	0.464	-	-2.4	20	116	0
Methyl cyclohexane	0.63	0.571	-	9.4	20	112	0
Trichloroethene	10	9.502	-	5	20	109	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : JACK2
 Lab File ID : J240408A01
 Sample No : WG1906247-2
 Channel :

Lab Number : L2417821
 Project Number : 045163
 Calibration Date : 04/08/24 03:16
 Init. Calib. Date(s) : 04/02/24 04/02/24
 Init. Calib. Times : 05:39 08:52

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Dibromomethane	0.193	0.194	-	-0.5	20	116	0
1,2-Dichloropropane	0.349	0.341	-	2.3	20	114	0
Bromodichloromethane	0.453	0.457	-	-0.9	20	113	0
1,4-Dioxane	0.00179	0.00208*	-	-16.2	20	132	0
cis-1,3-Dichloropropene	10	9.492	-	5.1	20	116	0
Chlorobenzene-d5	1	1	-	0	20	110	0
Toluene-d8	1.272	1.258	-	1.1	20	107	0
Toluene	1.108	1.084	-	2.2	20	113	0
4-Methyl-2-pentanone	0.119	0.106	-	10.9	20	116	0
Tetrachloroethene	0.468	0.472	-	-0.9	20	115	0
trans-1,3-Dichloropropene	10	9.332	-	6.7	20	117	0
Ethyl methacrylate	0.37	0.368	-	0.5	20	117	0
1,1,2-Trichloroethane	0.297	0.283	-	4.7	20	110	0
Chlorodibromomethane	0.385	0.362	-	6	20	112	0
1,3-Dichloropropane	0.554	0.526	-	5.1	20	109	0
1,2-Dibromoethane	0.317	0.314	-	0.9	20	117	0
2-Hexanone	0.232	0.213	-	8.2	20	113	0
Chlorobenzene	1.192	1.155	-	3.1	20	114	0
Ethylbenzene	2.152	2.141	-	0.5	20	114	0
1,1,1,2-Tetrachloroethane	0.412	0.38	-	7.8	20	113	0
p/m Xylene	0.846	0.834	-	1.4	20	114	0
o Xylene	0.811	0.789	-	2.7	20	114	0
Styrene	1.378	1.332	-	3.3	20	116	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	106	0
Bromoform	10	9.01	-	9.9	20	112	0
Isopropylbenzene	3.628	3.592	-	1	20	113	0
4-Bromofluorobenzene	0.806	0.84	-	-4.2	20	111	0
Bromobenzene	0.863	0.859	-	0.5	20	116	0
n-Propylbenzene	4.565	4.569	-	-0.1	20	114	0
1,4-Dichlorobutane	1.044	1.006	-	3.6	20	119	0
1,1,2,2-Tetrachloroethane	0.752	0.704	-	6.4	20	116	0
4-Ethyltoluene	3.717	3.695	-	0.6	20	113	0
2-Chlorotoluene	3.037	3.052	-	-0.5	20	116	0
1,3,5-Trimethylbenzene	3.122	3.182	-	-1.9	20	115	0
1,2,3-Trichloropropane	0.594	0.55	-	7.4	20	112	0
trans-1,4-Dichloro-2-buten	0.253	0.244	-	3.6	20	120	0
4-Chlorotoluene	2.68	2.701	-	-0.8	20	117	0
tert-Butylbenzene	2.655	2.645	-	0.4	20	113	0
1,2,4-Trimethylbenzene	3.064	3.074	-	-0.3	20	116	0
sec-Butylbenzene	4.045	4.056	-	-0.3	20	113	0
p-Isopropyltoluene	3.5	3.475	-	0.7	20	113	0
1,3-Dichlorobenzene	1.781	1.734	-	2.6	20	112	0
1,4-Dichlorobenzene	1.778	1.77	-	0.4	20	115	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : JACK2
 Lab File ID : J240408A01
 Sample No : WG1906247-2
 Channel :

Lab Number : L2417821
 Project Number : 045163
 Calibration Date : 04/08/24 03:16
 Init. Calib. Date(s) : 04/02/24 04/02/24
 Init. Calib. Times : 05:39 08:52

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
p-Diethylbenzene	2.099	2.086	-	0.6	20	115	0
n-Butylbenzene	3.225	3.264	-	-1.2	20	115	0
1,2-Dichlorobenzene	1.639	1.587	-	3.2	20	114	0
1,2,4,5-Tetramethylbenzene	3.095	2.857	-	7.7	20	116	0
1,2-Dibromo-3-chloropropan	0.129	0.118	-	8.5	20	114	0
1,3,5-Trichlorobenzene	1.274	1.293	-	-1.5	20	118	0
Hexachlorobutadiene	0.547	0.56	-	-2.4	20	121	0
1,2,4-Trichlorobenzene	1.144	1.101	-	3.8	20	120	0
Naphthalene	2.591	2.493	-	3.8	20	115	0
1,2,3-Trichlorobenzene	0.993	0.973	-	2	20	118	0

* Value outside of QC limits.





Wednesday, April 10, 2024

Attn: Graham Parker
Alpha Analytical Lab
8 Walkup Drive
Westborough, MA 01581

Project ID: L2417821
SDG ID: GCQ41553
Sample ID#s: CQ41553

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Phyllis Shiller".

Phyllis Shiller

Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

April 10, 2024

SDG I.D.: GCQ41553

Project ID: L2417821

Client Id	Lab Id	Matrix
045163-MW-112A	CQ41553	WATER



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

April 10, 2024

FOR: Attn: Graham Parker
Alpha Analytical Lab
8 Walkup Drive
Westborough, MA 01581

Sample Information

Matrix: WATER
Location Code: ALPHA
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: SW
Analyzed by: see "By" below

Date

04/02/24
04/03/24

Time

11:55
11:00

Laboratory Data

SDG ID: GCQ41553
Phoenix ID: CQ41553

Project ID: L2417821
Client ID: 045163-MW-112A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Sulfide	< 0.05	0.05	mg/L	1	04/09/24	GD	SM4500S-D-11

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

April 10, 2024

Reviewed and Released by: Sarah Bell, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

QA/QC Report

April 10, 2024

QA/QC Data

SDG I.D.: GCQ41553

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
-----------	-------	-----------	------------------	---------------	------------	----------	-----------	------------	---------	----------	-----------	--------------------	--------------------

QA/QC Batch 725988 (mg/L), QC Sample No: CQ43715 (CQ41553)

Sulfide	BRL	0.05	<0.05	<0.05	NC	95.0			93.4			90 - 110	20
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Comment:

Additional: LCS acceptance range is 90-110% MS acceptance range 75-125%.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis Shiller, Laboratory Director
April 10, 2024

Wednesday, April 10, 2024

Criteria: None
State: MA

Sample Criteria Exceedances Report
GCQ41553 - ALPHA

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
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Analysis Comments

April 10, 2024

SDG I.D.: GCQ41553

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

1.3000x
1.3010

		Subcontract Chain of Custody Phoenix Environmental Laboratories 587 East Middle Turnpike Manchester, CT 06040		Alpha Job Number L2417821	
Client Information Client: Alpha Analytical Labs Address: Eight Walkup Drive Westborough, MA 01581-1019 Phone: 508.439.5160 Email: Graham.Parker@pacelabs.com		Project Information Project Location: MA Project Manager: Graham Parker Turnaround & Deliverables Information Due Date: Deliverables:		Regulatory Requirements/Report Limits State/Federal Program: Regulatory Criteria:	
Project Specific Requirements and/or Report Requirements					
Reference following Alpha Job Number on final report/deliverables: L2417821				Report to include Method Blank, LCS/LCSD:	
Additional Comments: Invoices to: invoices@pacelabs.coupa.com Reports to: west.subreports@pacelabs.com					
Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
41553	045163-MW-112A	04-02-24 11:55	WATER	Sulfide	2 - 250ml plastic MB
Relinquished By:		Date/Time:		Received By:	
 Relinquished By:		4/3/24 7:55 4/3/24 09:45 4/3/24 10:52		4/3/24 07:55 4/3/24 09:45 4/3/24 11:02	
Form No: AL_subcoc					



ANALYTICAL REPORT

Lab Number:	L2418092
Client:	GEI Consultants 400 Unicorn Park Drive Woburn, MA 01801
ATTN:	Chris Coner
Phone:	(781) 721-4000
Project Name:	50 TUFTS STREET
Project Number:	045163
Report Date:	04/09/24

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418092
Report Date: 04/09/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2418092-01	045163-MW120S	WATER	SOMERVILLE, MASSACHUSETTS	04/02/24 15:15	04/03/24

Project Name: 50 TUFTS STREET

Lab Number: L2418092

Project Number: 045163

Report Date: 04/09/24

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES
For any questions answered "No", please refer to the case narrative section on the following page(s).		

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418092
Report Date: 04/09/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418092
Report Date: 04/09/24

Case Narrative (continued)

MCP Related Narratives

Volatile Organics

L2418092-01: Initial calibration utilized a quadratic fit for: trans-1,3-dichloropropene, trichloroethene, cis-1,3-dichloropropene, bromoform

In reference to question H:

L2418092-01: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: 1,4-dioxane (0.0015)

Average Response Factor: 1,4-dioxane

Verification: Carbon disulfide (65%)

L2418092-01: The associated continuing calibration standard is outside the acceptance criteria for several compounds; however, it is within overall method allowances. Associated results are considered to be biased high if the %D is negative and biased low if the %D is positive. A copy of the continuing calibration standard is included as an addendum to this report.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Michelle M. Morris

Title: Technical Director/Representative

Date: 04/09/24

QC OUTLIER SUMMARY REPORT

Project Name: 50 TUFTS STREET**Lab Number:** L2418092**Project Number:** 045163**Report Date:** 04/09/24

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
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There are no QC Outliers associated with this report.

ORGANICS

VOLATILES

Project Name: 50 TUFTS STREET**Lab Number:** L2418092**Project Number:** 045163**Report Date:** 04/09/24**SAMPLE RESULTS**

Lab ID: L2418092-01
 Client ID: 045163-MW120S
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 15:15
 Date Received: 04/03/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/05/24 13:01

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418092**Project Number:** 045163**Report Date:** 04/09/24**SAMPLE RESULTS**

Lab ID: L2418092-01
 Client ID: 045163-MW120S
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/02/24 15:15
 Date Received: 04/03/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418092**Project Number:** 045163**Report Date:** 04/09/24**SAMPLE RESULTS****Lab ID:** L2418092-01**Date Collected:** 04/02/24 15:15**Client ID:** 045163-MW120S**Date Received:** 04/03/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	120		70-130

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418092
Report Date: 04/09/24

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
 Analytical Date: 04/05/24 05:13
 Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG1905836-5					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.40	--
cis-1,3-Dichloropropene	ND		ug/l	0.40	--
1,3-Dichloropropene, Total	ND		ug/l	0.40	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418092
Report Date: 04/09/24

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 04/05/24 05:13
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG1905836-5					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
Methyl ethyl ketone	ND		ug/l	5.0	--
Methyl isobutyl ketone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418092
Report Date: 04/09/24

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 04/05/24 05:13
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG1905836-5					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Diethyl ether	ND		ug/l	2.0	--
Diisopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	119		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418092

Report Date: 04/09/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1905836-3 WG1905836-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	92		96		70-130	4		20
1,2-Dichloropropane	93		95		70-130	2		20
Dibromochloromethane	91		90		70-130	1		20
1,1,2-Trichloroethane	92		89		70-130	3		20
Tetrachloroethene	98		97		70-130	1		20
Chlorobenzene	94		94		70-130	0		20
Trichlorofluoromethane	99		110		70-130	11		20
1,2-Dichloroethane	99		99		70-130	0		20
1,1,1-Trichloroethane	100		100		70-130	0		20
Bromodichloromethane	97		95		70-130	2		20
trans-1,3-Dichloropropene	87		85		70-130	2		20
cis-1,3-Dichloropropene	90		92		70-130	2		20
1,1-Dichloropropene	98		98		70-130	0		20
Bromoform	83		88		70-130	6		20
1,1,2,2-Tetrachloroethane	85		88		70-130	3		20
Benzene	96		98		70-130	2		20
Toluene	95		94		70-130	1		20
Ethylbenzene	96		96		70-130	0		20
Chloromethane	110		110		70-130	0		20
Bromomethane	79		94		70-130	17		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418092

Report Date: 04/09/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1905836-3 WG1905836-4								
Vinyl chloride	100		110		70-130	10		20
Chloroethane	100		110		70-130	10		20
1,1-Dichloroethene	110		110		70-130	0		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	95		94		70-130	1		20
1,2-Dichlorobenzene	93		96		70-130	3		20
1,3-Dichlorobenzene	93		95		70-130	2		20
1,4-Dichlorobenzene	93		96		70-130	3		20
Methyl tert butyl ether	90		88		70-130	2		20
p/m-Xylene	95		95		70-130	0		20
o-Xylene	95		95		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	100		99		70-130	1		20
1,2,3-Trichloropropane	88		87		70-130	1		20
Styrene	90		90		70-130	0		20
Dichlorodifluoromethane	110		110		70-130	0		20
Acetone	97		93		70-130	4		20
Carbon disulfide	100		110		70-130	10		20
Methyl ethyl ketone	81		86		70-130	6		20
Methyl isobutyl ketone	82		82		70-130	0		20
2-Hexanone	88		85		70-130	3		20
Bromochloromethane	100		100		70-130	0		20
Tetrahydrofuran	94		91		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418092

Report Date: 04/09/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1905836-3 WG1905836-4								
2,2-Dichloropropane	100		100		70-130	0		20
1,2-Dibromoethane	92		90		70-130	2		20
1,3-Dichloropropane	92		90		70-130	2		20
1,1,1,2-Tetrachloroethane	87		87		70-130	0		20
Bromobenzene	92		96		70-130	4		20
n-Butylbenzene	95		98		70-130	3		20
sec-Butylbenzene	94		98		70-130	4		20
tert-Butylbenzene	94		97		70-130	3		20
o-Chlorotoluene	94		96		70-130	2		20
p-Chlorotoluene	94		97		70-130	3		20
1,2-Dibromo-3-chloropropane	86		86		70-130	0		20
Hexachlorobutadiene	95		100		70-130	5		20
Isopropylbenzene	94		97		70-130	3		20
p-Isopropyltoluene	94		97		70-130	3		20
Naphthalene	90		92		70-130	2		20
n-Propylbenzene	94		97		70-130	3		20
1,2,3-Trichlorobenzene	94		95		70-130	1		20
1,2,4-Trichlorobenzene	92		95		70-130	3		20
1,3,5-Trimethylbenzene	95		99		70-130	4		20
1,2,4-Trimethylbenzene	94		97		70-130	3		20
Diethyl ether	92		95		70-130	3		20
Diisopropyl Ether	90		90		70-130	0		20
Ethyl-Tert-Butyl-Ether	85		85		70-130	0		20

Lab Control Sample Analysis Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418092

Report Date: 04/09/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG1905836-3 WG1905836-4								
Tertiary-Amyl Methyl Ether	85		85		70-130	0		20
1,4-Dioxane	120		116		70-130	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	98		98		70-130
Toluene-d8	100		99		70-130
4-Bromofluorobenzene	98		102		70-130
Dibromofluoromethane	101		100		70-130

Project Name: 50 TUFTS STREET
Project Number: 045163

Serial_No:04092418:30
Lab Number: L2418092
Report Date: 04/09/24

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2418092-01A	Vial HCl preserved	A	NA		5.4	Y	Absent		MCP-8260-21(14)
L2418092-01B	Vial HCl preserved	A	NA		5.4	Y	Absent		MCP-8260-21(14)
L2418092-01C	Vial HCl preserved	A	NA		5.4	Y	Absent		MCP-8260-21(14)

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418092
Report Date: 04/09/24

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report



Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418092
Report Date: 04/09/24

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report



Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418092
Report Date: 04/09/24

Data Qualifiers

- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418092
Report Date: 04/09/24

REFERENCES

- 141 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA and IIB, November 2021.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 20

Published Date: 6/16/2023 4:52:28 PM

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Certification Information**The following analytes are not included in our Primary NELAP Scope of Accreditation:****Westborough Facility****EPA 624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625.1:** alpha-Terpineol**EPA 8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B**The following analytes are included in our Massachusetts DEP Scope of Accreditation****Westborough Facility:****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables).**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Sample Matrix Abbreviations: SO = Soil GW = Groundwater SW = Surface Water SD = Sediment CO = Concrete PC = Paint Chip CLK = Caulk

Method Blank Summary Form 4 Volatiles

Client	: GEI Consultants	Lab Number	: L2418092
Project Name	: 50 TUFTS STREET	Project Number	: 045163
Lab Sample ID	: WG1905836-5	Lab File ID	: J240405A04
Instrument ID	: JACK2		
Matrix	: WATER	Analysis Date	: 04/05/24 05:13

Client Sample No.	Lab Sample ID	Analysis Date
WG1905836-3LCS	WG1905836-3	04/05/24 03:50
WG1905836-4LCSD	WG1905836-4	04/05/24 04:18
045163-MW120S	L2418092-01	04/05/24 13:01

Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : JACK2
 Lab File ID : J240405A01
 Sample No : WG1905836-2
 Channel :

Lab Number : L2418092
 Project Number : 045163
 Calibration Date : 04/05/24 03:50
 Init. Calib. Date(s) : 04/02/24 04/02/24
 Init. Calib. Times : 05:39 08:52

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	105	0
Dichlorodifluoromethane	0.428	0.459	-	-7.2	20	106	0
Chloromethane	0.456	0.5	-	-9.6	20	107	0
Vinyl chloride	0.575	0.609	-	-5.9	20	108	0
Bromomethane	0.3	0.238	-	20.7*	20	95	0
Chloroethane	0.371	0.381	-	-2.7	20	103	0
Trichlorofluoromethane	0.51	0.506	-	0.8	20	100	0
Ethyl ether	0.143	0.131	-	8.4	20	100	0
1,1-Dichloroethene	0.318	0.338	-	-6.3	20	110	0
Carbon disulfide	0.993	1.032	-	-3.9	20	108	0
Freon-113	0.334	0.32	-	4.2	20	103	0
Iodomethane	10	7.996	-	20	20	94	0
Acrolein	0.04	0.037	-	7.5	20	117	0
Methylene chloride	0.338	0.34	-	-0.6	20	108	0
Acetone	10	9.7	-	3	20	106	0
trans-1,2-Dichloroethene	0.341	0.355	-	-4.1	20	109	0
Methyl acetate	0.197	0.175	-	11.2	20	102	0
Methyl tert-butyl ether	0.786	0.708	-	9.9	20	100	0
tert-Butyl alcohol	0.026	0.023	-	11.5	20	105	0
Diisopropyl ether	1.082	0.978	-	9.6	20	101	0
1,1-Dichloroethane	0.7	0.708	-	-1.1	20	107	0
Halothane	0.26	0.256	-	1.5	20	102	0
Acrylonitrile	0.094	0.092	-	2.1	20	106	0
Ethyl tert-butyl ether	0.98	0.831	-	15.2	20	102	0
Vinyl acetate	10	9.112	-	8.9	20	114	0
cis-1,2-Dichloroethene	0.387	0.391	-	-1	20	108	0
2,2-Dichloropropane	0.546	0.578	-	-5.9	20	112	0
Bromochloromethane	0.164	0.171	-	-4.3	20	111	0
Cyclohexane	0.652	0.672	-	-3.1	20	106	0
Chloroform	0.628	0.655	-	-4.3	20	111	0
Ethyl acetate	0.256	0.235	-	8.2	20	103	0
Carbon tetrachloride	10	9.223	-	7.8	20	105	0
Tetrahydrofuran	0.096	0.09	-	6.3	20	102	0
Dibromofluoromethane	0.278	0.281	-	-1.1	20	105	0
1,1,1-Trichloroethane	0.545	0.558	-	-2.4	20	108	0
2-Butanone	0.115	0.093	-	19.1	20	96	0
1,1-Dichloropropene	0.461	0.452	-	2	20	102	0
Benzene	1.326	1.272	-	4.1	20	101	0
tert-Amyl methyl ether	0.814	0.694	-	14.7	20	101	0
1,2-Dichloroethane-d4	0.341	0.334	-	2.1	20	105	0
1,2-Dichloroethane	0.453	0.446	-	1.5	20	104	0
Methyl cyclohexane	0.63	0.56	-	11.1	20	102	0
Trichloroethene	10	9.495	-	5.1	20	102	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : JACK2
 Lab File ID : J240405A01
 Sample No : WG1905836-2
 Channel :

Lab Number : L2418092
 Project Number : 045163
 Calibration Date : 04/05/24 03:50
 Init. Calib. Date(s) : 04/02/24 04/02/24
 Init. Calib. Times : 05:39 08:52

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Dibromomethane	0.193	0.193	-	0	20	107	0
1,2-Dichloropropane	0.349	0.323	-	7.4	20	100	0
2-Chloroethyl vinyl ether	10	8.862	-	11.4	20	105	0
Bromodichloromethane	0.453	0.439	-	3.1	20	101	0
1,4-Dioxane	0.00179	0.00215*	-	-20.1*	20	127	0
cis-1,3-Dichloropropene	10	9.022	-	9.8	20	103	0
Chlorobenzene-d5	1	1	-	0	20	105	0
Toluene-d8	1.272	1.277	-	-0.4	20	104	0
Toluene	1.108	1.053	-	5	20	105	0
4-Methyl-2-pentanone	0.119	0.098	-	17.6	20	102	0
Tetrachloroethene	0.468	0.459	-	1.9	20	106	0
trans-1,3-Dichloropropene	10	8.666	-	13.3	20	104	0
Ethyl methacrylate	0.37	0.347	-	6.2	20	105	0
1,1,2-Trichloroethane	0.297	0.275	-	7.4	20	101	0
Chlorodibromomethane	0.385	0.349	-	9.4	20	103	0
1,3-Dichloropropane	0.554	0.508	-	8.3	20	100	0
1,2-Dibromoethane	0.317	0.293	-	7.6	20	104	0
2-Hexanone	0.232	0.205	-	11.6	20	104	0
Chlorobenzene	1.192	1.126	-	5.5	20	106	0
Ethylbenzene	2.152	2.059	-	4.3	20	104	0
1,1,1,2-Tetrachloroethane	0.412	0.36	-	12.6	20	102	0
p/m Xylene	0.846	0.808	-	4.5	20	105	0
o Xylene	0.811	0.767	-	5.4	20	106	0
Styrene	1.378	1.271	-	7.8	20	106	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	104	0
Bromoform	10	8.329	-	16.7	20	101	0
Isopropylbenzene	3.628	3.405	-	6.1	20	105	0
4-Bromofluorobenzene	0.806	0.791	-	1.9	20	103	0
Bromobenzene	0.863	0.798	-	7.5	20	106	0
n-Propylbenzene	4.565	4.295	-	5.9	20	105	0
1,4-Dichlorobutane	1.044	0.895	-	14.3	20	104	0
1,1,2,2-Tetrachloroethane	0.752	0.64	-	14.9	20	104	0
4-Ethyltoluene	3.717	3.459	-	6.9	20	104	0
2-Chlorotoluene	3.037	2.857	-	5.9	20	107	0
1,3,5-Trimethylbenzene	3.122	2.98	-	4.5	20	106	0
1,2,3-Trichloropropane	0.594	0.52	-	12.5	20	105	0
trans-1,4-Dichloro-2-buten	0.253	0.216	-	14.6	20	104	0
4-Chlorotoluene	2.68	2.527	-	5.7	20	107	0
tert-Butylbenzene	2.655	2.505	-	5.6	20	105	0
1,2,4-Trimethylbenzene	3.064	2.876	-	6.1	20	106	0
sec-Butylbenzene	4.045	3.819	-	5.6	20	105	0
p-Isopropyltoluene	3.5	3.282	-	6.2	20	105	0
1,3-Dichlorobenzene	1.781	1.662	-	6.7	20	106	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : JACK2
 Lab File ID : J240405A01
 Sample No : WG1905836-2
 Channel :

Lab Number : L2418092
 Project Number : 045163
 Calibration Date : 04/05/24 03:50
 Init. Calib. Date(s) : 04/02/24 04/02/24
 Init. Calib. Times : 05:39 08:52

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dichlorobenzene	1.778	1.649	-	7.3	20	105	0
p-Diethylbenzene	2.099	1.99	-	5.2	20	108	0
n-Butylbenzene	3.225	3.068	-	4.9	20	106	0
1,2-Dichlorobenzene	1.639	1.527	-	6.8	20	108	0
1,2,4,5-Tetramethylbenzene	3.095	2.656	-	14.2	20	106	0
1,2-Dibromo-3-chloropropan	0.129	0.11	-	14.7	20	104	0
1,3,5-Trichlorobenzene	1.274	1.212	-	4.9	20	108	0
Hexachlorobutadiene	0.547	0.522	-	4.6	20	110	0
1,2,4-Trichlorobenzene	1.144	1.05	-	8.2	20	113	0
Naphthalene	2.591	2.338	-	9.8	20	106	0
1,2,3-Trichlorobenzene	0.993	0.931	-	6.2	20	111	0

* Value outside of QC limits.





ANALYTICAL REPORT

Lab Number:	L2418450
Client:	GEI Consultants 400 Unicorn Park Drive Woburn, MA 01801
ATTN:	Chris Coner
Phone:	(781) 721-4000
Project Name:	50 TUFTS STREET
Project Number:	045163
Report Date:	04/11/24

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418450
Report Date: 04/11/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2418450-01	045163-MW109	WATER	SOMERVILLE, MASSACHUSETTS	04/04/24 08:45	04/04/24
L2418450-02	045163-GEO-2	WATER	SOMERVILLE, MASSACHUSETTS	04/04/24 10:05	04/04/24
L2418450-03	045163-MW901	WATER	SOMERVILLE, MASSACHUSETTS	04/04/24 12:00	04/04/24
L2418450-04	045163-GEO-4	WATER	SOMERVILLE, MASSACHUSETTS	04/04/24 12:05	04/04/24
L2418450-05	045163-MW122	WATER	SOMERVILLE, MASSACHUSETTS	04/04/24 08:30	04/04/24
L2418450-06	045163-MW104R	WATER	SOMERVILLE, MASSACHUSETTS	04/04/24 12:10	04/04/24
L2418450-07	045163-MW203R	WATER	SOMERVILLE, MASSACHUSETTS	04/04/24 10:30	04/04/24

Project Name: 50 TUFTS STREET

Lab Number: L2418450

Project Number: 045163

Report Date: 04/11/24

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO
For any questions answered "No", please refer to the case narrative section on the following page(s).		

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418450
Report Date: 04/11/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418450
Report Date: 04/11/24

Case Narrative (continued)

Report Submission

The analysis of Sulfide was subcontracted. A copy of the laboratory report is included as an addendum. Please note: This data is only available in PDF format and is not available on Data Merger.

MCP Related Narratives

Sample Receipt

L2418450-07: A sample identified as "045163-MW203R" was received, but not listed on the Chain of Custody. At the client's request, this sample was analyzed.

Volatile Organics

L2418450-05D: Differences were noted between the results of the analyses which have been attributed to vial discrepancies. Further re-analysis could not be performed due to the existing vials being compromised.

L2418450-05D2 and -06D: Initial calibration utilized a quadratic fit for: trans-1,3-dichloropropene, trichloroethene, cis-1,3-dichloropropene, bromoform

L2418450-06D2: A copy of the continuing calibration standard is included as an addendum to this report.

In reference to question G:

L2418450-04D, -05D2, -06D, and -07D: One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

L2418450-01, -02, -03, -04D, and -07D: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: cis-1,2-dichloroethene (0.1719), bromochloromethane (0.0793), chloroform (0.2711), trichloroethene (0.1848), 1,2-dichloropropane (0.1455), bromodichloromethane (0.2021), 1,4-dioxane (0.0008), cis-1,3-dichloropropene (0.2102), 1,1,2-trichloroethane (0.0973), 1,2-dibromoethane (0.1105)

Average Response Factor: cis-1,2-dichloroethene, bromochloromethane, trichloroethene, 1,2-dichloropropane, bromodichloromethane, 1,4-dioxane, cis-1,3-dichloropropene, 1,1,2-trichloroethane, 1,2-dibromoethane

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418450
Report Date: 04/11/24

Case Narrative (continued)

Verification: carbon disulfide (69%)

L2418450-05D2 and -06D: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: 1,4-dioxane (0.0015)

Average Response Factor: 1,4-dioxane

Verification: carbon disulfide (65%)

L2418450-01 through -04D, -05D2, -06D, and -07D: The associated continuing calibration standard is outside the acceptance criteria for several compounds; however, it is within overall method allowances. Associated results are considered to be biased high if the %D is negative and biased low if the %D is positive. A copy of the continuing calibration standard is included as an addendum to this report.

Total Metals

In reference to question I:

All samples were analyzed for a subset of MCP analytes per client request.

Non MCP Related Narratives

Nitrogen, Total Kjeldahl

L2418450-02: The sample has an elevated detection limit due to the dilution required by the sample matrix.

Chloride

The WG1906242-4 MS recovery for chloride (150%), performed on L2418450-02, does not apply because the sample concentration is greater than four times the spike amount added.

Total Organic Carbon

The WG1906784-3 Laboratory Duplicate RPD for total organic carbon (21%), performed on L2418450-06, is above the acceptance criteria; however, the sample and duplicate results are less than five times the reporting

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418450
Report Date: 04/11/24

Case Narrative (continued)

limit. Therefore, the RPD is valid.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Cristin Walker

Title: Technical Director/Representative

Date: 04/11/24

QC OUTLIER SUMMARY REPORT

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
General Chemistry - Westborough Lab								
9060A	Batch QC (L2418450-06)	WG1906784-3	Total Organic Carbon	Duplicate	21	20	02,06	non-directional bias
9251	Batch QC (L2418450-02)	WG1906242-4	Chloride	MS	150	58-140	02,06	potential high bias

ORGANICS

VOLATILES

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-01
 Client ID: 045163-MW109
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 08:45
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 141,8260D
 Analytical Date: 04/09/24 06:14
 Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	12		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS****Lab ID:** L2418450-01**Date Collected:** 04/04/24 08:45**Client ID:** 045163-MW109**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS****Lab ID:** L2418450-01**Date Collected:** 04/04/24 08:45**Client ID:** 045163-MW109**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	111		70-130

Project Name: 50 TUFTS STREET**Project Number:** 045163**Lab Number:** L2418450**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-02
Client ID: 045163-GEO-2
Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 10:05
Date Received: 04/04/24
Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 117,-

Analytical Date: 04/08/24 08:53

Analyst: APR

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	ND		ug/l	3.00	--	1	A
Ethene	ND		ug/l	3.00	--	1	A
Ethane	ND		ug/l	3.00	--	1	A

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-02
 Client ID: 045163-GEO-2
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 10:05
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/09/24 06:38

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	58		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	3.9		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	1.2		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-02
 Client ID: 045163-GEO-2
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 10:05
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	7.1		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS****Lab ID:** L2418450-02**Date Collected:** 04/04/24 10:05**Client ID:** 045163-GEO-2**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	109		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-03
 Client ID: 045163-MW901
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 12:00
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/09/24 07:02

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	57		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	3.8		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	1.1		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-03
 Client ID: 045163-MW901
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 12:00
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	7.1		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS****Lab ID:** L2418450-03**Date Collected:** 04/04/24 12:00**Client ID:** 045163-MW901**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	109		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-04 D
 Client ID: 045163-GEO-4
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 12:05
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/09/24 12:36

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	50	--	25
1,1-Dichloroethane	ND		ug/l	25	--	25
Chloroform	ND		ug/l	25	--	25
Carbon tetrachloride	ND		ug/l	25	--	25
1,2-Dichloropropane	ND		ug/l	25	--	25
Dibromochloromethane	ND		ug/l	25	--	25
1,1,2-Trichloroethane	ND		ug/l	25	--	25
Tetrachloroethene	3600		ug/l	25	--	25
Chlorobenzene	ND		ug/l	25	--	25
Trichlorofluoromethane	ND		ug/l	50	--	25
1,2-Dichloroethane	ND		ug/l	25	--	25
1,1,1-Trichloroethane	ND		ug/l	25	--	25
Bromodichloromethane	ND		ug/l	25	--	25
trans-1,3-Dichloropropene	ND		ug/l	10	--	25
cis-1,3-Dichloropropene	ND		ug/l	10	--	25
1,3-Dichloropropene, Total	ND		ug/l	10	--	25
1,1-Dichloropropene	ND		ug/l	50	--	25
Bromoform	ND		ug/l	50	--	25
1,1,2,2-Tetrachloroethane	ND		ug/l	25	--	25
Benzene	ND		ug/l	12	--	25
Toluene	ND		ug/l	25	--	25
Ethylbenzene	ND		ug/l	25	--	25
Chloromethane	ND		ug/l	50	--	25
Bromomethane	ND		ug/l	50	--	25
Vinyl chloride	ND		ug/l	25	--	25
Chloroethane	ND		ug/l	50	--	25
1,1-Dichloroethene	ND		ug/l	25	--	25
trans-1,2-Dichloroethene	ND		ug/l	25	--	25

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-04 D
 Client ID: 045163-GEO-4
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 12:05
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	26		ug/l	25	--	25
1,2-Dichlorobenzene	ND		ug/l	25	--	25
1,3-Dichlorobenzene	ND		ug/l	25	--	25
1,4-Dichlorobenzene	ND		ug/l	25	--	25
Methyl tert butyl ether	ND		ug/l	50	--	25
p/m-Xylene	ND		ug/l	50	--	25
o-Xylene	ND		ug/l	25	--	25
Xylenes, Total	ND		ug/l	25	--	25
cis-1,2-Dichloroethene	ND		ug/l	25	--	25
1,2-Dichloroethene, Total	ND		ug/l	25	--	25
Dibromomethane	ND		ug/l	50	--	25
1,2,3-Trichloropropane	ND		ug/l	50	--	25
Styrene	ND		ug/l	25	--	25
Dichlorodifluoromethane	ND		ug/l	50	--	25
Acetone	ND		ug/l	120	--	25
Carbon disulfide	ND		ug/l	50	--	25
Methyl ethyl ketone	ND		ug/l	120	--	25
Methyl isobutyl ketone	ND		ug/l	120	--	25
2-Hexanone	ND		ug/l	120	--	25
Bromochloromethane	ND		ug/l	50	--	25
Tetrahydrofuran	ND		ug/l	50	--	25
2,2-Dichloropropane	ND		ug/l	50	--	25
1,2-Dibromoethane	ND		ug/l	50	--	25
1,3-Dichloropropane	ND		ug/l	50	--	25
1,1,1,2-Tetrachloroethane	ND		ug/l	25	--	25
Bromobenzene	ND		ug/l	50	--	25
n-Butylbenzene	ND		ug/l	50	--	25
sec-Butylbenzene	ND		ug/l	50	--	25
tert-Butylbenzene	ND		ug/l	50	--	25
o-Chlorotoluene	ND		ug/l	50	--	25
p-Chlorotoluene	ND		ug/l	50	--	25
1,2-Dibromo-3-chloropropane	ND		ug/l	50	--	25
Hexachlorobutadiene	ND		ug/l	15	--	25
Isopropylbenzene	ND		ug/l	50	--	25
p-Isopropyltoluene	ND		ug/l	50	--	25
Naphthalene	ND		ug/l	50	--	25
n-Propylbenzene	ND		ug/l	50	--	25

Project Name: 50 TUFTS STREET

Lab Number: L2418450

Project Number: 045163

Report Date: 04/11/24

SAMPLE RESULTS

Lab ID: L2418450-04 D
 Client ID: 045163-GEO-4
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 12:05
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	50	--	25
1,2,4-Trichlorobenzene	ND		ug/l	50	--	25
1,3,5-Trimethylbenzene	ND		ug/l	50	--	25
1,2,4-Trimethylbenzene	ND		ug/l	50	--	25
Diethyl ether	ND		ug/l	50	--	25
Diisopropyl Ether	ND		ug/l	50	--	25
Ethyl-Tert-Butyl-Ether	ND		ug/l	50	--	25
Tertiary-Amyl Methyl Ether	ND		ug/l	50	--	25
1,4-Dioxane	ND		ug/l	6200	--	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	106		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-05 D2
 Client ID: 045163-MW122
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 08:30
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/10/24 10:40

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	4.0	--	2
1,1-Dichloroethane	3.1		ug/l	2.0	--	2
Chloroform	ND		ug/l	2.0	--	2
Carbon tetrachloride	ND		ug/l	2.0	--	2
1,2-Dichloropropane	ND		ug/l	2.0	--	2
Dibromochloromethane	ND		ug/l	2.0	--	2
1,1,2-Trichloroethane	ND		ug/l	2.0	--	2
Tetrachloroethene	490	E	ug/l	2.0	--	2
Chlorobenzene	ND		ug/l	2.0	--	2
Trichlorofluoromethane	ND		ug/l	4.0	--	2
1,2-Dichloroethane	ND		ug/l	2.0	--	2
1,1,1-Trichloroethane	ND		ug/l	2.0	--	2
Bromodichloromethane	ND		ug/l	2.0	--	2
trans-1,3-Dichloropropene	ND		ug/l	0.80	--	2
cis-1,3-Dichloropropene	ND		ug/l	0.80	--	2
1,3-Dichloropropene, Total	ND		ug/l	0.80	--	2
1,1-Dichloropropene	ND		ug/l	4.0	--	2
Bromoform	ND		ug/l	4.0	--	2
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	--	2
Benzene	ND		ug/l	1.0	--	2
Toluene	ND		ug/l	2.0	--	2
Ethylbenzene	ND		ug/l	2.0	--	2
Chloromethane	ND		ug/l	4.0	--	2
Bromomethane	ND		ug/l	4.0	--	2
Vinyl chloride	ND		ug/l	2.0	--	2
Chloroethane	ND		ug/l	4.0	--	2
1,1-Dichloroethene	ND		ug/l	2.0	--	2
trans-1,2-Dichloroethene	ND		ug/l	2.0	--	2

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-05 D2
 Client ID: 045163-MW122
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 08:30
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	41		ug/l	2.0	--	2
1,2-Dichlorobenzene	ND		ug/l	2.0	--	2
1,3-Dichlorobenzene	ND		ug/l	2.0	--	2
1,4-Dichlorobenzene	ND		ug/l	2.0	--	2
Methyl tert butyl ether	ND		ug/l	4.0	--	2
p/m-Xylene	ND		ug/l	4.0	--	2
o-Xylene	ND		ug/l	2.0	--	2
Xylenes, Total	ND		ug/l	2.0	--	2
cis-1,2-Dichloroethene	22		ug/l	2.0	--	2
1,2-Dichloroethene, Total	22		ug/l	2.0	--	2
Dibromomethane	ND		ug/l	4.0	--	2
1,2,3-Trichloropropane	ND		ug/l	4.0	--	2
Styrene	ND		ug/l	2.0	--	2
Dichlorodifluoromethane	ND		ug/l	4.0	--	2
Acetone	ND		ug/l	10	--	2
Carbon disulfide	ND		ug/l	4.0	--	2
Methyl ethyl ketone	ND		ug/l	10	--	2
Methyl isobutyl ketone	ND		ug/l	10	--	2
2-Hexanone	ND		ug/l	10	--	2
Bromochloromethane	ND		ug/l	4.0	--	2
Tetrahydrofuran	ND		ug/l	4.0	--	2
2,2-Dichloropropane	ND		ug/l	4.0	--	2
1,2-Dibromoethane	ND		ug/l	4.0	--	2
1,3-Dichloropropane	ND		ug/l	4.0	--	2
1,1,1,2-Tetrachloroethane	ND		ug/l	2.0	--	2
Bromobenzene	ND		ug/l	4.0	--	2
n-Butylbenzene	ND		ug/l	4.0	--	2
sec-Butylbenzene	ND		ug/l	4.0	--	2
tert-Butylbenzene	ND		ug/l	4.0	--	2
o-Chlorotoluene	ND		ug/l	4.0	--	2
p-Chlorotoluene	ND		ug/l	4.0	--	2
1,2-Dibromo-3-chloropropane	ND		ug/l	4.0	--	2
Hexachlorobutadiene	ND		ug/l	1.2	--	2
Isopropylbenzene	ND		ug/l	4.0	--	2
p-Isopropyltoluene	ND		ug/l	4.0	--	2
Naphthalene	ND		ug/l	4.0	--	2
n-Propylbenzene	ND		ug/l	4.0	--	2

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-05 D2
 Client ID: 045163-MW122
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 08:30
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	4.0	--	2
1,2,4-Trichlorobenzene	ND		ug/l	4.0	--	2
1,3,5-Trimethylbenzene	ND		ug/l	4.0	--	2
1,2,4-Trimethylbenzene	ND		ug/l	4.0	--	2
Diethyl ether	ND		ug/l	4.0	--	2
Diisopropyl Ether	ND		ug/l	4.0	--	2
Ethyl-Tert-Butyl-Ether	ND		ug/l	4.0	--	2
Tertiary-Amyl Methyl Ether	ND		ug/l	4.0	--	2
1,4-Dioxane	ND		ug/l	500	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	95		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-05 D
 Client ID: 045163-MW122
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 08:30
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/09/24 12:59

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

Tetrachloroethene	170		ug/l	4.0	--	4
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	110		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-06
 Client ID: 045163-MW104R
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 12:10
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 117,-

Analytical Date: 04/08/24 09:11

Analyst: APR

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	ND		ug/l	3.00	--	1	A
Ethene	ND		ug/l	3.00	--	1	A
Ethane	ND		ug/l	3.00	--	1	A

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-06 D2
 Client ID: 045163-MW104R
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 12:10
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/11/24 06:31

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

Tetrachloroethene	2200		ug/l	20	--	20
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	101		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-06 D
 Client ID: 045163-MW104R
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 12:10
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/10/24 11:08

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	20	--	10
1,1-Dichloroethane	ND		ug/l	10	--	10
Chloroform	ND		ug/l	10	--	10
Carbon tetrachloride	ND		ug/l	10	--	10
1,2-Dichloropropane	ND		ug/l	10	--	10
Dibromochloromethane	ND		ug/l	10	--	10
1,1,2-Trichloroethane	ND		ug/l	10	--	10
Tetrachloroethene	2200	E	ug/l	10	--	10
Chlorobenzene	ND		ug/l	10	--	10
Trichlorofluoromethane	ND		ug/l	20	--	10
1,2-Dichloroethane	ND		ug/l	10	--	10
1,1,1-Trichloroethane	ND		ug/l	10	--	10
Bromodichloromethane	ND		ug/l	10	--	10
trans-1,3-Dichloropropene	ND		ug/l	4.0	--	10
cis-1,3-Dichloropropene	ND		ug/l	4.0	--	10
1,3-Dichloropropene, Total	ND		ug/l	4.0	--	10
1,1-Dichloropropene	ND		ug/l	20	--	10
Bromoform	ND		ug/l	20	--	10
1,1,2,2-Tetrachloroethane	ND		ug/l	10	--	10
Benzene	ND		ug/l	5.0	--	10
Toluene	ND		ug/l	10	--	10
Ethylbenzene	ND		ug/l	10	--	10
Chloromethane	ND		ug/l	20	--	10
Bromomethane	ND		ug/l	20	--	10
Vinyl chloride	ND		ug/l	10	--	10
Chloroethane	ND		ug/l	20	--	10
1,1-Dichloroethene	ND		ug/l	10	--	10
trans-1,2-Dichloroethene	ND		ug/l	10	--	10

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-06 D
 Client ID: 045163-MW104R
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 12:10
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	31		ug/l	10	--	10
1,2-Dichlorobenzene	ND		ug/l	10	--	10
1,3-Dichlorobenzene	ND		ug/l	10	--	10
1,4-Dichlorobenzene	ND		ug/l	10	--	10
Methyl tert butyl ether	ND		ug/l	20	--	10
p/m-Xylene	ND		ug/l	20	--	10
o-Xylene	ND		ug/l	10	--	10
Xylenes, Total	ND		ug/l	10	--	10
cis-1,2-Dichloroethene	12		ug/l	10	--	10
1,2-Dichloroethene, Total	12		ug/l	10	--	10
Dibromomethane	ND		ug/l	20	--	10
1,2,3-Trichloropropane	ND		ug/l	20	--	10
Styrene	ND		ug/l	10	--	10
Dichlorodifluoromethane	ND		ug/l	20	--	10
Acetone	ND		ug/l	50	--	10
Carbon disulfide	ND		ug/l	20	--	10
Methyl ethyl ketone	ND		ug/l	50	--	10
Methyl isobutyl ketone	ND		ug/l	50	--	10
2-Hexanone	ND		ug/l	50	--	10
Bromochloromethane	ND		ug/l	20	--	10
Tetrahydrofuran	ND		ug/l	20	--	10
2,2-Dichloropropane	ND		ug/l	20	--	10
1,2-Dibromoethane	ND		ug/l	20	--	10
1,3-Dichloropropane	ND		ug/l	20	--	10
1,1,1,2-Tetrachloroethane	ND		ug/l	10	--	10
Bromobenzene	ND		ug/l	20	--	10
n-Butylbenzene	ND		ug/l	20	--	10
sec-Butylbenzene	ND		ug/l	20	--	10
tert-Butylbenzene	ND		ug/l	20	--	10
o-Chlorotoluene	ND		ug/l	20	--	10
p-Chlorotoluene	ND		ug/l	20	--	10
1,2-Dibromo-3-chloropropane	ND		ug/l	20	--	10
Hexachlorobutadiene	ND		ug/l	6.0	--	10
Isopropylbenzene	ND		ug/l	20	--	10
p-Isopropyltoluene	ND		ug/l	20	--	10
Naphthalene	ND		ug/l	20	--	10
n-Propylbenzene	ND		ug/l	20	--	10

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-06 D
 Client ID: 045163-MW104R
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 12:10
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	20	--	10
1,2,4-Trichlorobenzene	ND		ug/l	20	--	10
1,3,5-Trimethylbenzene	ND		ug/l	20	--	10
1,2,4-Trimethylbenzene	ND		ug/l	20	--	10
Diethyl ether	ND		ug/l	20	--	10
Diisopropyl Ether	ND		ug/l	20	--	10
Ethyl-Tert-Butyl-Ether	ND		ug/l	20	--	10
Tertiary-Amyl Methyl Ether	ND		ug/l	20	--	10
1,4-Dioxane	ND		ug/l	2500	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	91		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-07 D
 Client ID: 045163-MW203R
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 10:30
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/09/24 13:23

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	100	--	50
1,1-Dichloroethane	ND		ug/l	50	--	50
Chloroform	ND		ug/l	50	--	50
Carbon tetrachloride	ND		ug/l	50	--	50
1,2-Dichloropropane	ND		ug/l	50	--	50
Dibromochloromethane	ND		ug/l	50	--	50
1,1,2-Trichloroethane	ND		ug/l	50	--	50
Tetrachloroethene	7500		ug/l	50	--	50
Chlorobenzene	ND		ug/l	50	--	50
Trichlorofluoromethane	ND		ug/l	100	--	50
1,2-Dichloroethane	ND		ug/l	50	--	50
1,1,1-Trichloroethane	ND		ug/l	50	--	50
Bromodichloromethane	ND		ug/l	50	--	50
trans-1,3-Dichloropropene	ND		ug/l	20	--	50
cis-1,3-Dichloropropene	ND		ug/l	20	--	50
1,3-Dichloropropene, Total	ND		ug/l	20	--	50
1,1-Dichloropropene	ND		ug/l	100	--	50
Bromoform	ND		ug/l	100	--	50
1,1,2,2-Tetrachloroethane	ND		ug/l	50	--	50
Benzene	ND		ug/l	25	--	50
Toluene	ND		ug/l	50	--	50
Ethylbenzene	ND		ug/l	50	--	50
Chloromethane	ND		ug/l	100	--	50
Bromomethane	ND		ug/l	100	--	50
Vinyl chloride	ND		ug/l	50	--	50
Chloroethane	ND		ug/l	100	--	50
1,1-Dichloroethene	ND		ug/l	50	--	50
trans-1,2-Dichloroethene	ND		ug/l	50	--	50

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-07 D
 Client ID: 045163-MW203R
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 10:30
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	120		ug/l	50	--	50
1,2-Dichlorobenzene	ND		ug/l	50	--	50
1,3-Dichlorobenzene	ND		ug/l	50	--	50
1,4-Dichlorobenzene	ND		ug/l	50	--	50
Methyl tert butyl ether	ND		ug/l	100	--	50
p/m-Xylene	ND		ug/l	100	--	50
o-Xylene	ND		ug/l	50	--	50
Xylenes, Total	ND		ug/l	50	--	50
cis-1,2-Dichloroethene	ND		ug/l	50	--	50
1,2-Dichloroethene, Total	ND		ug/l	50	--	50
Dibromomethane	ND		ug/l	100	--	50
1,2,3-Trichloropropane	ND		ug/l	100	--	50
Styrene	ND		ug/l	50	--	50
Dichlorodifluoromethane	ND		ug/l	100	--	50
Acetone	ND		ug/l	250	--	50
Carbon disulfide	ND		ug/l	100	--	50
Methyl ethyl ketone	ND		ug/l	250	--	50
Methyl isobutyl ketone	ND		ug/l	250	--	50
2-Hexanone	ND		ug/l	250	--	50
Bromochloromethane	ND		ug/l	100	--	50
Tetrahydrofuran	ND		ug/l	100	--	50
2,2-Dichloropropane	ND		ug/l	100	--	50
1,2-Dibromoethane	ND		ug/l	100	--	50
1,3-Dichloropropane	ND		ug/l	100	--	50
1,1,1,2-Tetrachloroethane	ND		ug/l	50	--	50
Bromobenzene	ND		ug/l	100	--	50
n-Butylbenzene	ND		ug/l	100	--	50
sec-Butylbenzene	ND		ug/l	100	--	50
tert-Butylbenzene	ND		ug/l	100	--	50
o-Chlorotoluene	ND		ug/l	100	--	50
p-Chlorotoluene	ND		ug/l	100	--	50
1,2-Dibromo-3-chloropropane	ND		ug/l	100	--	50
Hexachlorobutadiene	ND		ug/l	30	--	50
Isopropylbenzene	ND		ug/l	100	--	50
p-Isopropyltoluene	ND		ug/l	100	--	50
Naphthalene	ND		ug/l	100	--	50
n-Propylbenzene	ND		ug/l	100	--	50

Project Name: 50 TUFTS STREET

Lab Number: L2418450

Project Number: 045163

Report Date: 04/11/24

SAMPLE RESULTS

Lab ID: L2418450-07 D

Date Collected: 04/04/24 10:30

Client ID: 045163-MW203R

Date Received: 04/04/24

Sample Location: SOMERVILLE, MASSACHUSETTS

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	100	--	50
1,2,4-Trichlorobenzene	ND		ug/l	100	--	50
1,3,5-Trimethylbenzene	ND		ug/l	100	--	50
1,2,4-Trimethylbenzene	ND		ug/l	100	--	50
Diethyl ether	ND		ug/l	100	--	50
Diisopropyl Ether	ND		ug/l	100	--	50
Ethyl-Tert-Butyl-Ether	ND		ug/l	100	--	50
Tertiary-Amyl Methyl Ether	ND		ug/l	100	--	50
1,4-Dioxane	ND		ug/l	12000	--	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	107		70-130

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418450
Report Date: 04/11/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 117,-
Analytical Date: 04/08/24 06:41
Analyst: APR

Parameter	Result	Qualifier	Units	RL	MDL
Dissolved Gases by GC - Mansfield Lab for sample(s): 02,06 Batch: WG1905319-3					
Methane	ND		ug/l	3.00	-- A
Ethene	ND		ug/l	3.00	-- A
Ethane	ND		ug/l	3.00	-- A

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418450
Report Date: 04/11/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 04/09/24 05:27
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-05,07 Batch: WG1906735-5					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.40	--
cis-1,3-Dichloropropene	ND		ug/l	0.40	--
1,3-Dichloropropene, Total	ND		ug/l	0.40	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418450
Report Date: 04/11/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
 Analytical Date: 04/09/24 05:27
 Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-05,07 Batch: WG1906735-5					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
Methyl ethyl ketone	ND		ug/l	5.0	--
Methyl isobutyl ketone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418450
Report Date: 04/11/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 04/09/24 05:27
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-05,07 Batch: WG1906735-5					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Diethyl ether	ND		ug/l	2.0	--
Diisopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	109		70-130

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418450
Report Date: 04/11/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
 Analytical Date: 04/10/24 08:23
 Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 05-06 Batch: WG1907293-5					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.40	--
cis-1,3-Dichloropropene	ND		ug/l	0.40	--
1,3-Dichloropropene, Total	ND		ug/l	0.40	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418450
Report Date: 04/11/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 04/10/24 08:23
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 05-06 Batch: WG1907293-5					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
Methyl ethyl ketone	ND		ug/l	5.0	--
Methyl isobutyl ketone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418450
Report Date: 04/11/24

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 04/10/24 08:23
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 05-06 Batch: WG1907293-5					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Diethyl ether	ND		ug/l	2.0	--
Diisopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	111		70-130

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418450
Report Date: 04/11/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 04/11/24 05:09
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 06 Batch: WG1907451-5					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.40	--
cis-1,3-Dichloropropene	ND		ug/l	0.40	--
1,3-Dichloropropene, Total	ND		ug/l	0.40	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418450
Report Date: 04/11/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 04/11/24 05:09
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 06 Batch: WG1907451-5					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
Methyl ethyl ketone	ND		ug/l	5.0	--
Methyl isobutyl ketone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418450
Report Date: 04/11/24

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 04/11/24 05:09
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 06 Batch: WG1907451-5					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Diethyl ether	ND		ug/l	2.0	--
Diisopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	117		70-130

Lab Control Sample Analysis Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418450

Report Date: 04/11/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Dissolved Gases by GC - Mansfield Lab Associated sample(s): 02,06 Batch: WG1905319-2									
Methane	90		-		80-120	-		25	A
Ethene	102		-		80-120	-		25	A
Ethane	95		-		80-120	-		25	A

Lab Control Sample Analysis Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418450

Report Date: 04/11/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-05,07 Batch: WG1906735-3 WG1906735-4								
Methylene chloride	97		100		70-130	3		20
1,1-Dichloroethane	94		96		70-130	2		20
Chloroform	93		100		70-130	7		20
Carbon tetrachloride	98		99		70-130	1		20
1,2-Dichloropropane	94		95		70-130	1		20
Dibromochloromethane	97		98		70-130	1		20
1,1,2-Trichloroethane	100		100		70-130	0		20
Tetrachloroethene	99		100		70-130	1		20
Chlorobenzene	100		100		70-130	0		20
Trichlorofluoromethane	95		97		70-130	2		20
1,2-Dichloroethane	97		91		70-130	6		20
1,1,1-Trichloroethane	92		93		70-130	1		20
Bromodichloromethane	97		99		70-130	2		20
trans-1,3-Dichloropropene	82		85		70-130	4		20
cis-1,3-Dichloropropene	90		94		70-130	4		20
1,1-Dichloropropene	94		95		70-130	1		20
Bromoform	83		86		70-130	4		20
1,1,2,2-Tetrachloroethane	100		110		70-130	10		20
Benzene	99		100		70-130	1		20
Toluene	98		99		70-130	1		20
Ethylbenzene	97		100		70-130	3		20
Chloromethane	93		93		70-130	0		20
Bromomethane	95		98		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418450

Report Date: 04/11/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-05,07 Batch: WG1906735-3 WG1906735-4								
Vinyl chloride	88		88		70-130	0		20
Chloroethane	83		85		70-130	2		20
1,1-Dichloroethene	98		100		70-130	2		20
trans-1,2-Dichloroethene	98		100		70-130	2		20
Trichloroethene	98		100		70-130	2		20
1,2-Dichlorobenzene	100		110		70-130	10		20
1,3-Dichlorobenzene	100		110		70-130	10		20
1,4-Dichlorobenzene	100		110		70-130	10		20
Methyl tert butyl ether	78		81		70-130	4		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	98		99		70-130	1		20
Dibromomethane	97		100		70-130	3		20
1,2,3-Trichloropropane	94		100		70-130	6		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	89		90		70-130	1		20
Acetone	90		95		70-130	5		20
Carbon disulfide	97		98		70-130	1		20
Methyl ethyl ketone	76		85		70-130	11		20
Methyl isobutyl ketone	71		75		70-130	5		20
2-Hexanone	75		79		70-130	5		20
Bromochloromethane	110		110		70-130	0		20
Tetrahydrofuran	110		110		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418450

Report Date: 04/11/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-05,07 Batch: WG1906735-3 WG1906735-4								
2,2-Dichloropropane	88		90		70-130	2		20
1,2-Dibromoethane	100		100		70-130	0		20
1,3-Dichloropropane	98		100		70-130	2		20
1,1,1,2-Tetrachloroethane	94		97		70-130	3		20
Bromobenzene	97		100		70-130	3		20
n-Butylbenzene	110		110		70-130	0		20
sec-Butylbenzene	110		120		70-130	9		20
tert-Butylbenzene	100		110		70-130	10		20
o-Chlorotoluene	100		110		70-130	10		20
p-Chlorotoluene	100		110		70-130	10		20
1,2-Dibromo-3-chloropropane	81		80		70-130	1		20
Hexachlorobutadiene	110		110		70-130	0		20
Isopropylbenzene	99		100		70-130	1		20
p-Isopropyltoluene	110		120		70-130	9		20
Naphthalene	88		93		70-130	6		20
n-Propylbenzene	100		110		70-130	10		20
1,2,3-Trichlorobenzene	92		98		70-130	6		20
1,2,4-Trichlorobenzene	92		99		70-130	7		20
1,3,5-Trimethylbenzene	98		100		70-130	2		20
1,2,4-Trimethylbenzene	95		99		70-130	4		20
Diethyl ether	93		95		70-130	2		20
Diisopropyl Ether	96		96		70-130	0		20
Ethyl-Tert-Butyl-Ether	79		81		70-130	3		20

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-05,07 Batch: WG1906735-3 WG1906735-4								
Tertiary-Amyl Methyl Ether	72		74		70-130	3		20
1,4-Dioxane	98		88		70-130	11		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	92		92		70-130
Toluene-d8	100		99		70-130
4-Bromofluorobenzene	96		97		70-130
Dibromofluoromethane	101		102		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418450

Report Date: 04/11/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 05-06 Batch: WG1907293-3 WG1907293-4								
Methylene chloride	98		99		70-130	1		20
1,1-Dichloroethane	99		98		70-130	1		20
Chloroform	98		98		70-130	0		20
Carbon tetrachloride	95		93		70-130	2		20
1,2-Dichloropropane	95		95		70-130	0		20
Dibromochloromethane	93		95		70-130	2		20
1,1,2-Trichloroethane	97		94		70-130	3		20
Tetrachloroethene	99		96		70-130	3		20
Chlorobenzene	97		95		70-130	2		20
Trichlorofluoromethane	100		110		70-130	10		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	100		100		70-130	0		20
Bromodichloromethane	97		100		70-130	3		20
trans-1,3-Dichloropropene	91		89		70-130	2		20
cis-1,3-Dichloropropene	93		93		70-130	0		20
1,1-Dichloropropene	100		98		70-130	2		20
Bromoform	86		90		70-130	5		20
1,1,2,2-Tetrachloroethane	92		96		70-130	4		20
Benzene	98		96		70-130	2		20
Toluene	100		97		70-130	3		20
Ethylbenzene	98		97		70-130	1		20
Chloromethane	98		92		70-130	6		20
Bromomethane	70		78		70-130	11		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418450

Report Date: 04/11/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 05-06 Batch: WG1907293-3 WG1907293-4								
Vinyl chloride	94		92		70-130	2		20
Chloroethane	89		90		70-130	1		20
1,1-Dichloroethene	100		100		70-130	0		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	95		96		70-130	1		20
1,2-Dichlorobenzene	94		98		70-130	4		20
1,3-Dichlorobenzene	96		98		70-130	2		20
1,4-Dichlorobenzene	95		99		70-130	4		20
Methyl tert butyl ether	97		94		70-130	3		20
p/m-Xylene	100		95		70-130	5		20
o-Xylene	95		95		70-130	0		20
cis-1,2-Dichloroethene	97		98		70-130	1		20
Dibromomethane	98		97		70-130	1		20
1,2,3-Trichloropropane	94		98		70-130	4		20
Styrene	95		95		70-130	0		20
Dichlorodifluoromethane	100		100		70-130	0		20
Acetone	99		92		70-130	7		20
Carbon disulfide	98		96		70-130	2		20
Methyl ethyl ketone	86		86		70-130	0		20
Methyl isobutyl ketone	91		91		70-130	0		20
2-Hexanone	94		90		70-130	4		20
Bromochloromethane	100		98		70-130	2		20
Tetrahydrofuran	98		94		70-130	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418450

Report Date: 04/11/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 05-06 Batch: WG1907293-3 WG1907293-4								
2,2-Dichloropropane	100		100		70-130	0		20
1,2-Dibromoethane	99		98		70-130	1		20
1,3-Dichloropropane	98		98		70-130	0		20
1,1,1,2-Tetrachloroethane	91		89		70-130	2		20
Bromobenzene	95		99		70-130	4		20
n-Butylbenzene	97		98		70-130	1		20
sec-Butylbenzene	98		99		70-130	1		20
tert-Butylbenzene	98		99		70-130	1		20
o-Chlorotoluene	99		100		70-130	1		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	88		92		70-130	4		20
Hexachlorobutadiene	93		97		70-130	4		20
Isopropylbenzene	98		99		70-130	1		20
p-Isopropyltoluene	97		99		70-130	2		20
Naphthalene	93		96		70-130	3		20
n-Propylbenzene	99		99		70-130	0		20
1,2,3-Trichlorobenzene	94		96		70-130	2		20
1,2,4-Trichlorobenzene	93		94		70-130	1		20
1,3,5-Trimethylbenzene	100		100		70-130	0		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
Diethyl ether	99		98		70-130	1		20
Diisopropyl Ether	94		93		70-130	1		20
Ethyl-Tert-Butyl-Ether	90		89		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418450

Report Date: 04/11/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 05-06 Batch: WG1907293-3 WG1907293-4								
Tertiary-Amyl Methyl Ether	90		89		70-130	1		20
1,4-Dioxane	98		102		70-130	4		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	100		100		70-130
Toluene-d8	102		100		70-130
4-Bromofluorobenzene	104		105		70-130
Dibromofluoromethane	100		99		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418450

Report Date: 04/11/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 06 Batch: WG1907451-3 WG1907451-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	100		99		70-130	1		20
Carbon tetrachloride	95		93		70-130	2		20
1,2-Dichloropropane	100		96		70-130	4		20
Dibromochloromethane	96		94		70-130	2		20
1,1,2-Trichloroethane	100		98		70-130	2		20
Tetrachloroethene	97		95		70-130	2		20
Chlorobenzene	99		97		70-130	2		20
Trichlorofluoromethane	110		110		70-130	0		20
1,2-Dichloroethane	110		100		70-130	10		20
1,1,1-Trichloroethane	100		100		70-130	0		20
Bromodichloromethane	100		100		70-130	0		20
trans-1,3-Dichloropropene	94		91		70-130	3		20
cis-1,3-Dichloropropene	98		94		70-130	4		20
1,1-Dichloropropene	100		100		70-130	0		20
Bromoform	91		88		70-130	3		20
1,1,2,2-Tetrachloroethane	98		96		70-130	2		20
Benzene	100		100		70-130	0		20
Toluene	100		97		70-130	3		20
Ethylbenzene	100		99		70-130	1		20
Chloromethane	100		100		70-130	0		20
Bromomethane	71		70		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418450

Report Date: 04/11/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 06 Batch: WG1907451-3 WG1907451-4								
Vinyl chloride	99		99		70-130	0		20
Chloroethane	92		95		70-130	3		20
1,1-Dichloroethene	100		94		70-130	6		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	99		96		70-130	3		20
1,2-Dichlorobenzene	100		96		70-130	4		20
1,3-Dichlorobenzene	100		98		70-130	2		20
1,4-Dichlorobenzene	100		98		70-130	2		20
Methyl tert butyl ether	97		94		70-130	3		20
p/m-Xylene	100		95		70-130	5		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	98		96		70-130	2		20
Dibromomethane	100		98		70-130	2		20
1,2,3-Trichloropropane	100		100		70-130	0		20
Styrene	100		95		70-130	5		20
Dichlorodifluoromethane	100		100		70-130	0		20
Acetone	110		110		70-130	0		20
Carbon disulfide	100		100		70-130	0		20
Methyl ethyl ketone	100		93		70-130	7		20
Methyl isobutyl ketone	95		94		70-130	1		20
2-Hexanone	100		98		70-130	2		20
Bromochloromethane	100		97		70-130	3		20
Tetrahydrofuran	100		100		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418450

Report Date: 04/11/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 06 Batch: WG1907451-3 WG1907451-4								
2,2-Dichloropropane	100		100		70-130	0		20
1,2-Dibromoethane	99		97		70-130	2		20
1,3-Dichloropropane	100		98		70-130	2		20
1,1,1,2-Tetrachloroethane	97		94		70-130	3		20
Bromobenzene	99		95		70-130	4		20
n-Butylbenzene	100		100		70-130	0		20
sec-Butylbenzene	100		99		70-130	1		20
tert-Butylbenzene	100		96		70-130	4		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	92		90		70-130	2		20
Hexachlorobutadiene	99		96		70-130	3		20
Isopropylbenzene	99		96		70-130	3		20
p-Isopropyltoluene	100		98		70-130	2		20
Naphthalene	96		93		70-130	3		20
n-Propylbenzene	100		98		70-130	2		20
1,2,3-Trichlorobenzene	98		94		70-130	4		20
1,2,4-Trichlorobenzene	95		92		70-130	3		20
1,3,5-Trimethylbenzene	100		100		70-130	0		20
1,2,4-Trimethylbenzene	100		99		70-130	1		20
Diethyl ether	100		97		70-130	3		20
Diisopropyl Ether	100		98		70-130	2		20
Ethyl-Tert-Butyl-Ether	94		90		70-130	4		20

Lab Control Sample Analysis Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418450

Report Date: 04/11/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 06 Batch: WG1907451-3 WG1907451-4								
Tertiary-Amyl Methyl Ether	93		88		70-130	6		20
1,4-Dioxane	106		98		70-130	8		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		100		70-130
Toluene-d8	101		100		70-130
4-Bromofluorobenzene	103		102		70-130
Dibromofluoromethane	97		98		70-130

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L2418450

Report Date: 04/11/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Dissolved Gases by GC - Mansfield Lab Associated sample(s): 02,06 QC Batch ID: WG1905319-4 QC Sample: L2418450-06 Client ID: 045163-MW104R						
Methane	ND	ND	ug/l	NC		25 A
Ethene	ND	ND	ug/l	NC		25 A
Ethane	ND	ND	ug/l	NC		25 A

METALS

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-02

Date Collected: 04/04/24 10:05

Client ID: 045163-GEO-2

Date Received: 04/04/24

Sample Location: SOMERVILLE, MASSACHUSETTS

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Manganese, Total	ND		mg/l	0.0100	--	1	04/05/24 15:42	04/08/24 21:24	EPA 3005A	97,6010D	JTS



Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**SAMPLE RESULTS**

Lab ID: L2418450-06

Date Collected: 04/04/24 12:10

Client ID: 045163-MW104R

Date Received: 04/04/24

Sample Location: SOMERVILLE, MASSACHUSETTS

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Manganese, Total	0.0101		mg/l	0.0100	--	1	04/05/24 15:42	04/08/24 21:31	EPA 3005A	97,6010D	JTS



Project Name: 50 TUFTS STREET

Lab Number: L2418450

Project Number: 045163

Report Date: 04/11/24

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab for sample(s): 02,06 Batch: WG1905240-1										
Manganese, Total	ND		mg/l	0.0100	--	1	04/05/24 15:42	04/08/24 20:59	97,6010D	JTS

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418450

Report Date: 04/11/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Total Metals - Mansfield Lab Associated sample(s): 02,06 Batch: WG1905240-2 WG1905240-3								
Manganese, Total	97		103		80-120	6		20

INORGANICS & MISCELLANEOUS

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418450

Report Date: 04/11/24

SAMPLE RESULTS

Lab ID: L2418450-02

Client ID: 045163-GEO-2

Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 10:05

Date Received: 04/04/24

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	32.3		mg CaCO3/L	2.00	NA	1	-	04/10/24 15:58	121,2320B	MKT
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	04/05/24 02:45	121,4500CL-D	CAR
Chloride	200		mg/l	10	--	10	-	04/09/24 08:06	1,9251	MRM
Nitrogen, Nitrate	5.29		mg/l	0.100	--	1	-	04/05/24 04:24	121,4500NO3-F	KAF
Nitrogen, Nitrate/Nitrite	5.3		mg/l	0.10	--	1	-	04/05/24 04:24	121,4500NO3-F	KAF
Total Nitrogen	5.3		mg/l	0.30	--	1	-	04/11/24 06:30	107,-	MRM
Nitrogen, Total Kjeldahl	ND		mg/l	0.600	--	2	04/09/24 18:21	04/10/24 12:07	121,4500NH3-H	KEP
Sulfate	16.		mg/l	10	--	1	04/11/24 11:30	04/11/24 11:30	1,9038	MRW
Total Organic Carbon	ND		mg/l	0.50	--	1	-	04/10/24 02:52	1,9060A	DEW
Surfactants, MBAS	ND		mg/l	0.050	--	1	04/05/24 04:45	04/05/24 06:08	121,5540C	CAR
Iron, Ferrous	ND		mg/l	0.50	--	1	-	04/05/24 09:32	121,3500FE-B	JBB



Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418450

Report Date: 04/11/24

SAMPLE RESULTS

Lab ID: L2418450-06

Client ID: 045163-MW104R

Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/04/24 12:10

Date Received: 04/04/24

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	138.		mg CaCO3/L	2.00	NA	1	-	04/10/24 15:58	121,2320B	MKT
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	04/05/24 02:45	121,4500CL-D	CAR
Chloride	240		mg/l	10	--	10	-	04/09/24 08:13	1,9251	MRM
Nitrogen, Nitrate	1.82		mg/l	0.100	--	1	-	04/05/24 04:29	121,4500NO3-F	KAF
Nitrogen, Nitrate/Nitrite	1.8		mg/l	0.10	--	1	-	04/05/24 04:29	121,4500NO3-F	KAF
Total Nitrogen	1.8		mg/l	0.30	--	1	-	04/11/24 06:30	107,-	MRM
Nitrogen, Total Kjeldahl	ND		mg/l	0.300	--	1	04/09/24 18:21	04/10/24 12:08	121,4500NH3-H	KEP
Sulfate	120		mg/l	100	--	10	04/11/24 11:30	04/11/24 11:30	1,9038	MRW
Total Organic Carbon	0.63		mg/l	0.50	--	1	-	04/10/24 02:52	1,9060A	DEW
Surfactants, MBAS	ND		mg/l	0.050	--	1	04/05/24 04:45	04/05/24 06:09	121,5540C	CAR
Iron, Ferrous	ND		mg/l	0.50	--	1	-	04/05/24 09:33	121,3500FE-B	JBB



Project Name: 50 TUFTS STREET

Lab Number: L2418450

Project Number: 045163

Report Date: 04/11/24

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 02,06 Batch: WG1905026-1									
Nitrogen, Nitrate	ND	mg/l	0.100	--	1	-	04/05/24 02:57	121,4500NO3-F	KAF
General Chemistry - Westborough Lab for sample(s): 02,06 Batch: WG1905027-1									
Nitrogen, Nitrate/Nitrite	ND	mg/l	0.10	--	1	-	04/05/24 02:57	121,4500NO3-F	KAF
General Chemistry - Westborough Lab for sample(s): 02,06 Batch: WG1905037-1									
Chlorine, Total Residual	ND	mg/l	0.02	--	1	-	04/05/24 02:45	121,4500CL-D	CAR
General Chemistry - Westborough Lab for sample(s): 02,06 Batch: WG1905066-1									
Surfactants, MBAS	ND	mg/l	0.050	--	1	04/05/24 04:45	04/05/24 06:07	121,5540C	CAR
General Chemistry - Westborough Lab for sample(s): 02,06 Batch: WG1905191-1									
Iron, Ferrous	ND	mg/l	0.50	--	1	-	04/05/24 09:31	121,3500FE-B	JBB
General Chemistry - Westborough Lab for sample(s): 02,06 Batch: WG1906242-1									
Chloride	ND	mg/l	1.0	--	1	-	04/09/24 06:24	1,9251	MRM
General Chemistry - Westborough Lab for sample(s): 02,06 Batch: WG1906596-1									
Nitrogen, Total Kjeldahl	ND	mg/l	0.300	--	1	04/09/24 18:21	04/10/24 12:03	121,4500NH3-H	KEP
General Chemistry - Westborough Lab for sample(s): 02,06 Batch: WG1906784-1									
Total Organic Carbon	ND	mg/l	0.50	--	1	-	04/10/24 02:52	1,9060A	DEW
General Chemistry - Westborough Lab for sample(s): 02,06 Batch: WG1907098-1									
Alkalinity, Total	ND	mg CaCO3/L	2.00	NA	1	-	04/10/24 15:58	121,2320B	MKT
General Chemistry - Westborough Lab for sample(s): 02,06 Batch: WG1907504-1									
Sulfate	ND	mg/l	10	--	1	04/11/24 11:30	04/11/24 11:30	1,9038	MRW

Lab Control Sample Analysis Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418450

Report Date: 04/11/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02,06 Batch: WG1905026-2								
Nitrogen, Nitrate	98		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02,06 Batch: WG1905027-2								
Nitrogen, Nitrate/Nitrite	98		-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 02,06 Batch: WG1905037-2								
Chlorine, Total Residual	100		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02,06 Batch: WG1905066-2								
Surfactants, MBAS	104		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02,06 Batch: WG1905191-2								
Iron, Ferrous	94		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02,06 Batch: WG1906242-2								
Chloride	93		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02,06 Batch: WG1906596-2								
Nitrogen, Total Kjeldahl	99		-		78-122	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418450

Report Date: 04/11/24

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02,06 Batch: WG1906784-2					
Total Organic Carbon	95	-	90-110	-	
General Chemistry - Westborough Lab Associated sample(s): 02,06 Batch: WG1907098-2					
Alkalinity, Total	108	-	90-110	-	10
General Chemistry - Westborough Lab Associated sample(s): 02,06 Batch: WG1907504-2					
Sulfate	95	-	90-110	-	

Matrix Spike Analysis **Batch Quality Control**

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418450

Report Date: 04/11/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02,06 QC Batch ID: WG1905026-4 QC Sample: L2418450-02 Client ID: 045163-GEO-2												
Nitrogen, Nitrate	5.29	4	9.13	96		-	-		83-113	-		17
General Chemistry - Westborough Lab Associated sample(s): 02,06 QC Batch ID: WG1905027-4 QC Sample: L2418450-02 Client ID: 045163-GEO-2												
Nitrogen, Nitrate/Nitrite	5.3	4	9.1	95		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 02,06 QC Batch ID: WG1905037-4 QC Sample: L2418450-06 Client ID: 045163-MW104R												
Chlorine, Total Residual	ND	0.25	0.22	88		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 02,06 QC Batch ID: WG1905066-4 QC Sample: L2418450-06 Client ID: 045163-MW104R												
Surfactants, MBAS	ND	0.4	0.430	108		-	-		52-157	-		32
General Chemistry - Westborough Lab Associated sample(s): 02,06 QC Batch ID: WG1905191-4 QC Sample: L2418450-06 Client ID: 045163-MW104R												
Iron, Ferrous	ND	1	0.97	97		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 02,06 QC Batch ID: WG1906242-4 QC Sample: L2418450-02 Client ID: 045163-GEO-2												
Chloride	200	20	230	150	Q	-	-		58-140	-		7
General Chemistry - Westborough Lab Associated sample(s): 02,06 QC Batch ID: WG1906784-4 QC Sample: L2418450-06 Client ID: 045163-MW104R												
Total Organic Carbon	0.63	16	16	97		-	-		80-120	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418450

Report Date: 04/11/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab	Associated sample(s): 02,06	QC Batch ID: WG1905026-3	QC Sample: L2418450-02	Client ID: 045163-GEO-2		
Nitrogen, Nitrate	5.29	5.28	mg/l	0		17
General Chemistry - Westborough Lab	Associated sample(s): 02,06	QC Batch ID: WG1905027-3	QC Sample: L2418450-02	Client ID: 045163-GEO-2		
Nitrogen, Nitrate/Nitrite	5.3	5.3	mg/l	0		20
General Chemistry - Westborough Lab	Associated sample(s): 02,06	QC Batch ID: WG1905037-3	QC Sample: L2418450-02	Client ID: 045163-GEO-2		
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab	Associated sample(s): 02,06	QC Batch ID: WG1905066-3	QC Sample: L2418450-06	Client ID: 045163-MW104R		
Surfactants, MBAS	ND	ND	mg/l	NC		32
General Chemistry - Westborough Lab	Associated sample(s): 02,06	QC Batch ID: WG1905191-3	QC Sample: L2418450-02	Client ID: 045163-GEO-2		
Iron, Ferrous	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab	Associated sample(s): 02,06	QC Batch ID: WG1906242-3	QC Sample: L2418450-02	Client ID: 045163-GEO-2		
Chloride	200	200	mg/l	0		7
General Chemistry - Westborough Lab	Associated sample(s): 02,06	QC Batch ID: WG1906784-3	QC Sample: L2418450-06	Client ID: 045163-MW104R		
Total Organic Carbon	0.63	0.78	mg/l	21	Q	20

Project Name: 50 TUFTS STREET**Lab Number:** L2418450**Project Number:** 045163**Report Date:** 04/11/24**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2418450-01A	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)
L2418450-01B	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)
L2418450-01C	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)
L2418450-02A	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)
L2418450-02B	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)
L2418450-02C	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)
L2418450-02D	Vial H2SO4 preserved	A	NA		4.4	Y	Absent		TOC-9060(28)
L2418450-02E	Vial H2SO4 preserved	A	NA		4.4	Y	Absent		TOC-9060(28)
L2418450-02F	20ml Vial HCl preserved	A	NA		4.4	Y	Absent		DISSGAS(14)
L2418450-02G	20ml Vial HCl preserved	A	NA		4.4	Y	Absent		DISSGAS(14)
L2418450-02H	Plastic 250ml unpreserved/No Headspace	A	NA		4.4	Y	Absent		ALK-T-2320(14)
L2418450-02I	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	4.4	Y	Absent		SUB-SULFIDE()
L2418450-02J	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	4.4	Y	Absent		SUB-SULFIDE()
L2418450-02K	Plastic 250ml HNO3 preserved	A	<2	<2	4.4	Y	Absent		MCP-MN-6010T-10(180)
L2418450-02L	Plastic 500ml H2SO4 preserved	A	<2	<2	4.4	Y	Absent		TKN-4500(28),NO3/NO2-4500(28),TNITROGEN(28)
L2418450-02M	Plastic 950ml unpreserved	A	7	7	4.4	Y	Absent		SO4-9038(28),CL-9251(28),TRC-4500(1),NO3-4500(2),MBAS-5540(2),FERROUS(1)
L2418450-02N	Plastic 950ml unpreserved	A	7	7	4.4	Y	Absent		SO4-9038(28),CL-9251(28),TRC-4500(1),NO3-4500(2),MBAS-5540(2),FERROUS(1)
L2418450-03A	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)
L2418450-03B	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)
L2418450-03C	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)
L2418450-04A	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)

Project Name: 50 TUFTS STREET
Project Number: 045163

Serial_No: 04112419:03
Lab Number: L2418450
Report Date: 04/11/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2418450-04B	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)
L2418450-04C	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)
L2418450-05A	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)
L2418450-05B	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)
L2418450-05C	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)
L2418450-06A	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)
L2418450-06B	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)
L2418450-06C	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)
L2418450-06D	Vial H2SO4 preserved	A	NA		4.4	Y	Absent		TOC-9060(28)
L2418450-06E	Vial H2SO4 preserved	A	NA		4.4	Y	Absent		TOC-9060(28)
L2418450-06F	20ml Vial HCl preserved	A	NA		4.4	Y	Absent		DISSGAS(14)
L2418450-06G	20ml Vial HCl preserved	A	NA		4.4	Y	Absent		DISSGAS(14)
L2418450-06H	Plastic 250ml unpreserved/No Headspace	A	NA		4.4	Y	Absent		ALK-T-2320(14)
L2418450-06I	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	4.4	Y	Absent		SUB-SULFIDE()
L2418450-06J	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	4.4	Y	Absent		SUB-SULFIDE()
L2418450-06K	Plastic 250ml HNO3 preserved	A	<2	<2	4.4	Y	Absent		MCP-MN-6010T-10(180)
L2418450-06L	Plastic 500ml H2SO4 preserved	A	<2	<2	4.4	Y	Absent		TKN-4500(28),NO3/NO2-4500(28),TNITROGEN(28)
L2418450-06M	Plastic 950ml unpreserved	A	7	7	4.4	Y	Absent		CL-9251(28),SO4-9038(28),TRC-4500(1),NO3-4500(2),MBAS-5540(2),FERROUS(1)
L2418450-06N	Plastic 950ml unpreserved	A	7	7	4.4	Y	Absent		CL-9251(28),SO4-9038(28),TRC-4500(1),NO3-4500(2),MBAS-5540(2),FERROUS(1)
L2418450-07A	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)
L2418450-07B	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)
L2418450-07C	Vial HCl preserved	A	NA		4.4	Y	Absent		MCP-8260-21(14)

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418450
Report Date: 04/11/24

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report



Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418450
Report Date: 04/11/24

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report



Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418450
Report Date: 04/11/24

Data Qualifiers

- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418450
Report Date: 04/11/24

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010; WSC-CAM-IIIA and IIID, January 2024; WSC-CAM-IIIB and VA, February 2024; and WSC-CAM-VB and VC, April 2024.
- 107 Alpha Analytical - In-house calculation method.
- 117 Technical Guidance for the Natural Attenuation Indicators: Methane, Ethane, and Ethene, EPA-NE, Revision 1, February 21, 2002 and Sample Preparation & Calculations for Dissolved Gas Analysis in Water Samples using a GC Headspace Equilibration Technique, EPA RSKSOP-175, Revision 2, May 2004.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 141 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA and IIB, November 2021.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

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Published Date: 6/16/2023 4:52:28 PM

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Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625.1:** alpha-Terpineol**EPA 8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables).**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.****EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Method Blank Summary Form 4 Volatiles

Client	: GEI Consultants	Lab Number	: L2418450
Project Name	: 50 TUFTS STREET	Project Number	: 045163
Lab Sample ID	: WG1906735-5	Lab File ID	: V16240409A05
Instrument ID	: VOA116		
Matrix	: WATER	Analysis Date	: 04/09/24 05:27

Client Sample No.	Lab Sample ID	Analysis Date
WG1906735-3LCS	WG1906735-3	04/09/24 03:52
WG1906735-4LCSD	WG1906735-4	04/09/24 04:16
045163-MW109	L2418450-01	04/09/24 06:14
045163-GEO-2	L2418450-02	04/09/24 06:38
045163-MW901	L2418450-03	04/09/24 07:02
045163-GEO-4	L2418450-04D	04/09/24 12:36
045163-MW122	L2418450-05D	04/09/24 12:59
045163-MW203R	L2418450-07D	04/09/24 13:23

Method Blank Summary Form 4 Volatiles

Client	: GEI Consultants	Lab Number	: L2418450
Project Name	: 50 TUFTS STREET	Project Number	: 045163
Lab Sample ID	: WG1907293-5	Lab File ID	: J240410A11
Instrument ID	: JACK2		
Matrix	: WATER	Analysis Date	: 04/10/24 08:23

Client Sample No.	Lab Sample ID	Analysis Date
WG1907293-3LCS	WG1907293-3	04/10/24 03:47
WG1907293-4LCSD	WG1907293-4	04/10/24 04:15
045163-MW122	L2418450-05D2	04/10/24 10:40
045163-MW104R	L2418450-06D	04/10/24 11:08

Method Blank Summary Form 4 Volatiles

Client	: GEI Consultants	Lab Number	: L2418450
Project Name	: 50 TUFTS STREET	Project Number	: 045163
Lab Sample ID	: WG1907451-5	Lab File ID	: J240411A04
Instrument ID	: JACK2		
Matrix	: WATER	Analysis Date	: 04/11/24 05:09

Client Sample No.	Lab Sample ID	Analysis Date
WG1907451-3LCS	WG1907451-3	04/11/24 03:46
WG1907451-4LCSD	WG1907451-4	04/11/24 04:14
045163-MW104R	L2418450-06D2	04/11/24 06:31

Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : VOA116
 Lab File ID : V16240409A01
 Sample No : WG1906735-2
 Channel :

Lab Number : L2418450
 Project Number : 045163
 Calibration Date : 04/09/24 03:52
 Init. Calib. Date(s) : 02/04/24 02/04/24
 Init. Calib. Times : 17:58 21:32

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	118	0
Dichlorodifluoromethane	0.245	0.219	-	10.6	20	99	0
Chloromethane	0.24	0.224	-	6.7	20	106	0
Vinyl chloride	0.224	0.198	-	11.6	20	96	0
Bromomethane	0.116	0.111	-	4.3	20	114	0
Chloroethane	0.127	0.106	-	16.5	20	92	0
Trichlorofluoromethane	0.257	0.244	-	5.1	20	105	0
Ethyl ether	0.07	0.065	-	7.1	20	112	0
1,1-Dichloroethene	0.154	0.152	-	1.3	20	111	0
Carbon disulfide	0.523	0.507	-	3.1	20	109	0
Freon-113	0.165	0.161	-	2.4	20	105	0
Methylene chloride	0.179	0.173	-	3.4	20	114	0
Acetone	10	8.973	-	10.3	20	108	0
trans-1,2-Dichloroethene	0.172	0.168	-	2.3	20	113	0
Methyl acetate	0.085	0.083	-	2.4	20	124	0
Methyl tert-butyl ether	0.353	0.277	-	21.5*	20	96	0
tert-Butyl alcohol	0.00935	0.00657*	-	29.7*	20	83	0
Diisopropyl ether	0.547	0.527	-	3.7	20	117	0
1,1-Dichloroethane	0.339	0.317	-	6.5	20	108	0
Halothane	0.136	0.131	-	3.7	20	109	0
Acrylonitrile	10	9.546	-	4.5	20	113	0
Ethyl tert-butyl ether	0.473	0.372	-	21.4*	20	96	0
Vinyl acetate	0.228	0.265	-	-16.2	20	147	0
cis-1,2-Dichloroethene	0.19	0.187*	-	1.6	20	115	0
2,2-Dichloropropane	0.243	0.214	-	11.9	20	100	0
Bromochloromethane	0.082	0.09*	-	-9.8	20	121	0
Cyclohexane	0.345	0.328	-	4.9	20	106	0
Chloroform	0.318	0.297	-	6.6	20	113	0
Ethyl acetate	0.116	0.109	-	6	20	110	0
Carbon tetrachloride	0.241	0.236	-	2.1	20	106	0
Tetrahydrofuran	10	10.69	-	-6.9	20	120	0
Dibromofluoromethane	0.27	0.272	-	-0.7	20	119	0
1,1,1-Trichloroethane	0.283	0.261	-	7.8	20	105	0
2-Butanone	0.052	0.04	-	23.1*	20	84	0
1,1-Dichloropropene	0.232	0.218	-	6	20	104	0
Benzene	0.657	0.648	-	1.4	20	114	0
tert-Amyl methyl ether	0.371	0.266	-	28.3*	20	89	0
1,2-Dichloroethane-d4	0.289	0.266	-	8	20	111	0
1,2-Dichloroethane	0.229	0.222	-	3.1	20	111	0
Methyl cyclohexane	0.31	0.287	-	7.4	20	106	0
Trichloroethene	0.185	0.181*	-	2.2	20	111	0
Dibromomethane	0.093	0.09	-	3.2	20	115	0
1,2-Dichloropropane	0.177	0.166	-	6.2	20	109	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : VOA116
 Lab File ID : V16240409A01
 Sample No : WG1906735-2
 Channel :

Lab Number : L2418450
 Project Number : 045163
 Calibration Date : 04/09/24 03:52
 Init. Calib. Date(s) : 02/04/24 02/04/24
 Init. Calib. Times : 17:58 21:32

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Bromodichloromethane	0.249	0.241*	-	3.2	20	112	0
1,4-Dioxane	0.0009	0.00089*	-	1.1	20	119	0
cis-1,3-Dichloropropene	0.246	0.222*	-	9.8	20	105	0
Chlorobenzene-d5	1	1	-	0	20	118	0
Toluene-d8	1.298	1.295	-	0.2	20	117	0
Toluene	0.563	0.552	-	2	20	112	0
4-Methyl-2-pentanone	10	7.095	-	29.1*	20	85	0
Tetrachloroethene	0.256	0.255	-	0.4	20	110	0
trans-1,3-Dichloropropene	10	8.2	-	18	20	103	0
Ethyl methacrylate	0.182	0.136	-	25.3*	20	89	0
1,1,2-Trichloroethane	0.136	0.138*	-	-1.5	20	116	0
Chlorodibromomethane	0.217	0.21	-	3.2	20	115	0
1,3-Dichloropropane	0.28	0.274	-	2.1	20	115	0
1,2-Dibromoethane	0.162	0.161*	-	0.6	20	114	0
2-Hexanone	0.09	0.067	-	25.6*	20	90	0
Chlorobenzene	0.62	0.623	-	-0.5	20	117	0
Ethylbenzene	1.079	1.048	-	2.9	20	110	0
1,1,1,2-Tetrachloroethane	0.22	0.207	-	5.9	20	110	0
p/m Xylene	0.418	0.42	-	-0.5	20	113	0
o Xylene	0.406	0.401	-	1.2	20	111	0
Styrene	0.665	0.672	-	-1.1	20	114	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	115	0
Bromoform	0.245	0.203	-	17.1	20	106	0
Isopropylbenzene	1.969	1.954	-	0.8	20	112	0
4-Bromofluorobenzene	0.868	0.833	-	4	20	113	0
Bromobenzene	0.476	0.461	-	3.2	20	114	0
n-Propylbenzene	2.309	2.444	-	-5.8	20	116	0
1,4-Dichlorobutane	0.51	0.484	-	5.1	20	117	0
1,1,2,2-Tetrachloroethane	0.323	0.333	-	-3.1	20	127	0
4-Ethyltoluene	1.957	2.014	-	-2.9	20	112	0
2-Chlorotoluene	1.579	1.638	-	-3.7	20	117	0
1,3,5-Trimethylbenzene	1.664	1.63	-	2	20	109	0
1,2,3-Trichloropropane	0.258	0.242	-	6.2	20	113	0
trans-1,4-Dichloro-2-buten	0.101	0.099	-	2	20	113	0
4-Chlorotoluene	1.423	1.458	-	-2.5	20	114	0
tert-Butylbenzene	1.424	1.455	-	-2.2	20	113	0
1,2,4-Trimethylbenzene	1.608	1.528	-	5	20	106	0
sec-Butylbenzene	2.069	2.312	-	-11.7	20	121	0
p-Isopropyltoluene	1.142	1.255	-	-9.9	20	116	0
1,3-Dichlorobenzene	1.092	1.123	-	-2.8	20	118	0
1,4-Dichlorobenzene	0.924	0.966	-	-4.5	20	119	0
p-Diethylbenzene	1.114	1.053	-	5.5	20	108	0
n-Butylbenzene	10	10.795	-	-7.9	20	118	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : VOA116
 Lab File ID : V16240409A01
 Sample No : WG1906735-2
 Channel :

Lab Number : L2418450
 Project Number : 045163
 Calibration Date : 04/09/24 03:52
 Init. Calib. Date(s) : 02/04/24 02/04/24
 Init. Calib. Times : 17:58 21:32

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichlorobenzene	0.841	0.86	-	-2.3	20	117	0
1,2,4,5-Tetramethylbenzene	1.384	1.335	-	3.5	20	114	0
1,2-Dibromo-3-chloropropan	10	8.099	-	19	20	100	0
1,3,5-Trichlorobenzene	0.638	0.625	-	2	20	114	0
Hexachlorobutadiene	0.23	0.249	-	-8.3	20	120	0
1,2,4-Trichlorobenzene	0.544	0.501	-	7.9	20	109	0
Naphthalene	1.049	0.923	-	12	20	106	0
1,2,3-Trichlorobenzene	0.487	0.45	-	7.6	20	109	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : JACK2
 Lab File ID : J240410A01
 Sample No : WG1907293-2
 Channel :

Lab Number : L2418450
 Project Number : 045163
 Calibration Date : 04/10/24 03:47
 Init. Calib. Date(s) : 04/02/24 04/02/24
 Init. Calib. Times : 05:39 08:52

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	124	0
Dichlorodifluoromethane	0.428	0.437	-	-2.1	20	120	0
Chloromethane	0.456	0.446	-	2.2	20	114	0
Vinyl chloride	0.575	0.539	-	6.3	20	114	0
Bromomethane	0.3	0.211	-	29.7*	20	100	0
Chloroethane	0.371	0.33	-	11.1	20	106	0
Trichlorofluoromethane	0.51	0.514	-	-0.8	20	121	0
Ethyl ether	0.143	0.142	-	0.7	20	129	0
1,1-Dichloroethene	0.318	0.32	-	-0.6	20	124	0
Carbon disulfide	0.993	0.969	-	2.4	20	121	0
Freon-113	0.334	0.331	-	0.9	20	127	0
Methylene chloride	0.338	0.332	-	1.8	20	125	0
Acetone	10	9.882	-	1.2	20	128	0
trans-1,2-Dichloroethene	0.341	0.347	-	-1.8	20	127	0
Methyl acetate	0.197	0.172	-	12.7	20	119	0
Methyl tert-butyl ether	0.786	0.766	-	2.5	20	129	0
tert-Butyl alcohol	0.026	0.024	-	7.7	20	129	0
Diisopropyl ether	1.082	1.016	-	6.1	20	125	0
1,1-Dichloroethane	0.7	0.695	-	0.7	20	125	0
Halothane	0.26	0.254	-	2.3	20	120	0
Acrylonitrile	0.094	0.091	-	3.2	20	124	0
Ethyl tert-butyl ether	0.98	0.881	-	10.1	20	129	0
Vinyl acetate	10	9.216	-	7.8	20	138	0
cis-1,2-Dichloroethene	0.387	0.374	-	3.4	20	123	0
2,2-Dichloropropane	0.546	0.57	-	-4.4	20	132	0
Bromochloromethane	0.164	0.165	-	-0.6	20	128	0
Cyclohexane	0.652	0.658	-	-0.9	20	124	0
Chloroform	0.628	0.614	-	2.2	20	124	0
Ethyl acetate	0.256	0.244	-	4.7	20	127	0
Carbon tetrachloride	10	9.496	-	5	20	128	0
Tetrahydrofuran	0.096	0.094	-	2.1	20	126	0
Dibromofluoromethane	0.278	0.279	-	-0.4	20	124	0
1,1,1-Trichloroethane	0.545	0.56	-	-2.8	20	129	0
2-Butanone	0.115	0.098	-	14.8	20	121	0
1,1-Dichloropropene	0.461	0.468	-	-1.5	20	126	0
Benzene	1.326	1.294	-	2.4	20	122	0
tert-Amyl methyl ether	0.814	0.729	-	10.4	20	126	0
1,2-Dichloroethane-d4	0.341	0.34	-	0.3	20	127	0
1,2-Dichloroethane	0.453	0.458	-	-1.1	20	127	0
Methyl cyclohexane	0.63	0.577	-	8.4	20	125	0
Trichloroethene	10	9.544	-	4.6	20	121	0
Dibromomethane	0.193	0.189	-	2.1	20	125	0
1,2-Dichloropropane	0.349	0.333	-	4.6	20	123	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : JACK2
 Lab File ID : J240410A01
 Sample No : WG1907293-2
 Channel :

Lab Number : L2418450
 Project Number : 045163
 Calibration Date : 04/10/24 03:47
 Init. Calib. Date(s) : 04/02/24 04/02/24
 Init. Calib. Times : 05:39 08:52

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Bromodichloromethane	0.453	0.439	-	3.1	20	120	0
1,4-Dioxane	0.00179	0.00175*	-	2.2	20	123	0
cis-1,3-Dichloropropene	10	9.292	-	7.1	20	126	0
Chlorobenzene-d5	1	1	-	0	20	121	0
Toluene-d8	1.272	1.298	-	-2	20	122	0
Toluene	1.108	1.146	-	-3.4	20	132	0
4-Methyl-2-pentanone	0.119	0.108	-	9.2	20	129	0
Tetrachloroethene	0.468	0.464	-	0.9	20	125	0
trans-1,3-Dichloropropene	10	9.08	-	9.2	20	126	0
Ethyl methacrylate	0.37	0.364	-	1.6	20	128	0
1,1,2-Trichloroethane	0.297	0.287	-	3.4	20	123	0
Chlorodibromomethane	0.385	0.358	-	7	20	123	0
1,3-Dichloropropane	0.554	0.542	-	2.2	20	124	0
1,2-Dibromoethane	0.317	0.314	-	0.9	20	129	0
2-Hexanone	0.232	0.218	-	6	20	128	0
Chlorobenzene	1.192	1.154	-	3.2	20	126	0
Ethylbenzene	2.152	2.11	-	2	20	124	0
1,1,1,2-Tetrachloroethane	0.412	0.374	-	9.2	20	123	0
p/m Xylene	0.846	0.829	-	2	20	125	0
o Xylene	0.811	0.785	-	3.2	20	125	0
Styrene	1.378	1.284	-	6.8	20	124	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	119	0
Bromoform	10	8.628	-	13.7	20	120	0
Isopropylbenzene	3.628	3.545	-	2.3	20	125	0
4-Bromofluorobenzene	0.806	0.835	-	-3.6	20	124	0
Bromobenzene	0.863	0.82	-	5	20	124	0
n-Propylbenzene	4.565	4.517	-	1.1	20	126	0
1,4-Dichlorobutane	1.044	0.982	-	5.9	20	130	0
1,1,2,2-Tetrachloroethane	0.752	0.694	-	7.7	20	128	0
4-Ethyltoluene	3.717	3.842	-	-3.4	20	131	0
2-Chlorotoluene	3.037	2.996	-	1.4	20	127	0
1,3,5-Trimethylbenzene	3.122	3.149	-	-0.9	20	128	0
1,2,3-Trichloropropane	0.594	0.562	-	5.4	20	129	0
trans-1,4-Dichloro-2-buten	0.253	0.227	-	10.3	20	125	0
4-Chlorotoluene	2.68	2.667	-	0.5	20	129	0
tert-Butylbenzene	2.655	2.593	-	2.3	20	124	0
1,2,4-Trimethylbenzene	3.064	3.186	-	-4	20	134	0
sec-Butylbenzene	4.045	3.967	-	1.9	20	124	0
p-Isopropyltoluene	3.5	3.401	-	2.8	20	124	0
1,3-Dichlorobenzene	1.781	1.705	-	4.3	20	124	0
1,4-Dichlorobenzene	1.778	1.695	-	4.7	20	123	0
p-Diethylbenzene	2.099	2.035	-	3	20	126	0
n-Butylbenzene	3.225	3.141	-	2.6	20	124	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : JACK2
 Lab File ID : J240410A01
 Sample No : WG1907293-2
 Channel :

Lab Number : L2418450
 Project Number : 045163
 Calibration Date : 04/10/24 03:47
 Init. Calib. Date(s) : 04/02/24 04/02/24
 Init. Calib. Times : 05:39 08:52

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichlorobenzene	1.639	1.545	-	5.7	20	125	0
1,2,4,5-Tetramethylbenzene	3.095	2.788	-	9.9	20	127	0
1,2-Dibromo-3-chloropropan	0.129	0.114	-	11.6	20	122	0
1,3,5-Trichlorobenzene	1.274	1.219	-	4.3	20	124	0
Hexachlorobutadiene	0.547	0.508	-	7.1	20	123	0
1,2,4-Trichlorobenzene	1.144	1.061	-	7.3	20	130	0
Naphthalene	2.591	2.418	-	6.7	20	125	0
1,2,3-Trichlorobenzene	0.993	0.929	-	6.4	20	127	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : JACK2
 Lab File ID : J240411A01
 Sample No : WG1907451-2
 Channel :

Lab Number : L2418450
 Project Number : 045163
 Calibration Date : 04/11/24 03:46
 Init. Calib. Date(s) : 04/02/24 04/02/24
 Init. Calib. Times : 05:39 08:52

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	109	0
Dichlorodifluoromethane	0.428	0.437	-	-2.1	20	106	0
Chloromethane	0.456	0.475	-	-4.2	20	107	0
Vinyl chloride	0.575	0.569	-	1	20	106	0
Bromomethane	0.3	0.212	-	29.3*	20	89	0
Chloroethane	0.371	0.34	-	8.4	20	96	0
Trichlorofluoromethane	0.51	0.553	-	-8.4	20	114	0
Ethyl ether	0.143	0.145	-	-1.4	20	116	0
1,1-Dichloroethene	0.318	0.317	-	0.3	20	108	0
Carbon disulfide	0.993	1.009	-	-1.6	20	111	0
Freon-113	0.334	0.325	-	2.7	20	109	0
Methylene chloride	0.338	0.34	-	-0.6	20	112	0
Acetone	10	10.819	-	-8.2	20	122	0
trans-1,2-Dichloroethene	0.341	0.349	-	-2.3	20	112	0
Methyl acetate	0.197	0.192	-	2.5	20	117	0
Methyl tert-butyl ether	0.786	0.761	-	3.2	20	113	0
tert-Butyl alcohol	0.026	0.026	-	0	20	127	0
Diisopropyl ether	1.082	1.116	-	-3.1	20	121	0
1,1-Dichloroethane	0.7	0.712	-	-1.7	20	113	0
Halothane	0.26	0.25	-	3.8	20	104	0
Acrylonitrile	0.094	0.094	-	0	20	113	0
Ethyl tert-butyl ether	0.98	0.92	-	6.1	20	118	0
Vinyl acetate	10	9.857	-	1.4	20	131	0
cis-1,2-Dichloroethene	0.387	0.38	-	1.8	20	110	0
2,2-Dichloropropane	0.546	0.573	-	-4.9	20	116	0
Bromochloromethane	0.164	0.167	-	-1.8	20	113	0
Cyclohexane	0.652	0.675	-	-3.5	20	111	0
Chloroform	0.628	0.637	-	-1.4	20	113	0
Ethyl acetate	0.256	0.267	-	-4.3	20	122	0
Carbon tetrachloride	10	9.472	-	5.3	20	113	0
Tetrahydrofuran	0.096	0.098	-	-2.1	20	116	0
Dibromofluoromethane	0.278	0.271	-	2.5	20	106	0
1,1,1-Trichloroethane	0.545	0.562	-	-3.1	20	113	0
2-Butanone	0.115	0.115	-	0	20	125	0
1,1-Dichloropropene	0.461	0.47	-	-2	20	111	0
Benzene	1.326	1.36	-	-2.6	20	112	0
tert-Amyl methyl ether	0.814	0.756	-	7.1	20	115	0
1,2-Dichloroethane-d4	0.341	0.345	-	-1.2	20	113	0
1,2-Dichloroethane	0.453	0.48	-	-6	20	117	0
Methyl cyclohexane	0.63	0.562	-	10.8	20	108	0
Trichloroethene	10	9.9	-	1	20	111	0
Dibromomethane	0.193	0.194	-	-0.5	20	113	0
1,2-Dichloropropane	0.349	0.352	-	-0.9	20	114	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : JACK2
 Lab File ID : J240411A01
 Sample No : WG1907451-2
 Channel :

Lab Number : L2418450
 Project Number : 045163
 Calibration Date : 04/11/24 03:46
 Init. Calib. Date(s) : 04/02/24 04/02/24
 Init. Calib. Times : 05:39 08:52

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Bromodichloromethane	0.453	0.458	-	-1.1	20	110	0
1,4-Dioxane	0.00179	0.0019*	-	-6.1	20	117	0
cis-1,3-Dichloropropene	10	9.791	-	2.1	20	117	0
Chlorobenzene-d5	1	1	-	0	20	107	0
Toluene-d8	1.272	1.287	-	-1.2	20	107	0
Toluene	1.108	1.113	-	-0.5	20	113	0
4-Methyl-2-pentanone	0.119	0.113	-	5	20	120	0
Tetrachloroethene	0.468	0.453	-	3.2	20	107	0
trans-1,3-Dichloropropene	10	9.414	-	5.9	20	115	0
Ethyl methacrylate	0.37	0.381	-	-3	20	118	0
1,1,2-Trichloroethane	0.297	0.297	-	0	20	112	0
Chlorodibromomethane	0.385	0.371	-	3.6	20	112	0
1,3-Dichloropropane	0.554	0.562	-	-1.4	20	113	0
1,2-Dibromoethane	0.317	0.314	-	0.9	20	114	0
2-Hexanone	0.232	0.232	-	0	20	121	0
Chlorobenzene	1.192	1.183	-	0.8	20	114	0
Ethylbenzene	2.152	2.191	-	-1.8	20	114	0
1,1,1,2-Tetrachloroethane	0.412	0.401	-	2.7	20	116	0
p/m Xylene	0.846	0.851	-	-0.6	20	113	0
o Xylene	0.811	0.817	-	-0.7	20	115	0
Styrene	1.378	1.371	-	0.5	20	116	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	105	0
Bromoform	10	9.081	-	9.2	20	112	0
Isopropylbenzene	3.628	3.578	-	1.4	20	112	0
4-Bromofluorobenzene	0.806	0.828	-	-2.7	20	109	0
Bromobenzene	0.863	0.858	-	0.6	20	115	0
n-Propylbenzene	4.565	4.632	-	-1.5	20	115	0
1,4-Dichlorobutane	1.044	1.062	-	-1.7	20	124	0
1,1,2,2-Tetrachloroethane	0.752	0.738	-	1.9	20	121	0
4-Ethyltoluene	3.717	3.783	-	-1.8	20	114	0
2-Chlorotoluene	3.037	3.127	-	-3	20	118	0
1,3,5-Trimethylbenzene	3.122	3.231	-	-3.5	20	116	0
1,2,3-Trichloropropane	0.594	0.603	-	-1.5	20	122	0
trans-1,4-Dichloro-2-buten	0.253	0.212	-	16.2	20	103	0
4-Chlorotoluene	2.68	2.814	-	-5	20	121	0
tert-Butylbenzene	2.655	2.651	-	0.2	20	112	0
1,2,4-Trimethylbenzene	3.064	3.158	-	-3.1	20	118	0
sec-Butylbenzene	4.045	4.112	-	-1.7	20	114	0
p-Isopropyltoluene	3.5	3.539	-	-1.1	20	114	0
1,3-Dichlorobenzene	1.781	1.815	-	-1.9	20	117	0
1,4-Dichlorobenzene	1.778	1.832	-	-3	20	118	0
p-Diethylbenzene	2.099	2.168	-	-3.3	20	119	0
n-Butylbenzene	3.225	3.373	-	-4.6	20	118	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : JACK2
 Lab File ID : J240411A01
 Sample No : WG1907451-2
 Channel :

Lab Number : L2418450
 Project Number : 045163
 Calibration Date : 04/11/24 03:46
 Init. Calib. Date(s) : 04/02/24 04/02/24
 Init. Calib. Times : 05:39 08:52

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichlorobenzene	1.639	1.655	-	-1	20	118	0
1,2,4,5-Tetramethylbenzene	3.095	2.9	-	6.3	20	117	0
1,2-Dibromo-3-chloropropan	0.129	0.119	-	7.8	20	113	0
1,3,5-Trichlorobenzene	1.274	1.292	-	-1.4	20	117	0
Hexachlorobutadiene	0.547	0.542	-	0.9	20	116	0
1,2,4-Trichlorobenzene	1.144	1.091	-	4.6	20	118	0
Naphthalene	2.591	2.49	-	3.9	20	114	0
1,2,3-Trichlorobenzene	0.993	0.977	-	1.6	20	118	0

* Value outside of QC limits.





Wednesday, April 10, 2024

Attn: Graham Parker
Alpha Analytical Lab
8 Walkup Drive
Westborough, MA 01581

Project ID: L2418450
SDG ID: GCQ43725
Sample ID#s: CQ43725 - CQ43726

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Phyllis Shiller".

Phyllis Shiller

Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

April 10, 2024

SDG I.D.: GCQ43725

Project ID: L2418450

Client Id	Lab Id	Matrix
045163-GEO-2	CQ43725	WATER
045163-MW104R	CQ43726	WATER



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

April 10, 2024

FOR: Attn: Graham Parker
Alpha Analytical Lab
8 Walkup Drive
Westborough, MA 01581

Sample Information

Matrix: WATER
Location Code: ALPHA
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: SR1
Analyzed by: see "By" below

Date

04/04/24
04/05/24

Time

10:05
11:12

Laboratory Data

SDG ID: GCQ43725
Phoenix ID: CQ43725

Project ID: L2418450
Client ID: 045163-GEO-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Sulfide	< 0.05	0.05	mg/L	1	04/10/24	GD	SM4500S-D-11

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

April 10, 2024

Reviewed and Released by: Anil Makol, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

April 10, 2024

FOR: Attn: Graham Parker
Alpha Analytical Lab
8 Walkup Drive
Westborough, MA 01581

Sample Information

Matrix: WATER
Location Code: ALPHA
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: SR1
Analyzed by: see "By" below

Date

04/04/24
04/05/24

Time

12:10
11:12

Laboratory Data

SDG ID: GCQ43725
Phoenix ID: CQ43726

Project ID: L2418450
Client ID: 045163-MW104R

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Sulfide	< 0.05	0.05	mg/L	1	04/10/24	GD	SM4500S-D-11

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

April 10, 2024

Reviewed and Released by: Anil Makol, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

QA/QC Report

April 10, 2024

QA/QC Data

SDG I.D.: GCQ43725

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
-----------	-------	-----------	------------------	---------------	------------	----------	-----------	------------	---------	----------	-----------	--------------------	--------------------

QA/QC Batch 726199 (mg/L), QC Sample No: CQ43725 (CQ43725, CQ43726)

Sulfide	BRL	0.05	<0.05	<0.05	NC	90.6			102			90 - 110	20
---------	-----	------	-------	-------	----	------	--	--	-----	--	--	----------	----

Comment:

Additional: LCS acceptance range is 90-110% MS acceptance range 75-125%.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis Shiller, Laboratory Director
April 10, 2024

Wednesday, April 10, 2024

Criteria: None
State: MA

Sample Criteria Exceedances Report
GCQ43725 - ALPHA

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
--------	-------	-----------------	----------	--------	----	----------	----------------	-------------------

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



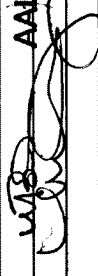
Analysis Comments

April 10, 2024

SDG I.D.: GCQ43725

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

1.0 ^{owc} 10

		Subcontract Chain of Custody Phoenix Environmental Laboratories 587 East Middle Turnpike Manchester, CT 06040		Alpha Job Number L2418450	
Client Information Client: Alpha Analytical Labs Address: Eight Walkup Drive Westborough, MA 01581-1019 Phone: 508.439.5160 Email: Graham.Parker@pacelabs.com		Project Information Project Location: MA Project Manager: Graham Parker Turnaround & Deliverables Information Due Date: Deliverables:		Regulatory Requirements/Report Limits State/Federal Program: Regulatory Criteria:	
Project Specific Requirements and/or Report Requirements					
Reference following Alpha Job Number on final report/deliverables: L2418450		Report to include Method Blank, LCS/LCSD:			
Additional Comments: Invoices to: invoices@pacelabs.coupa.com Reports to: west.subreports@pacelabs.com					
Lab ID 43725 43726	Client ID 045163-GEO-2 045163-MW104R	Collection Date/Time 04-04-24 10:05 04-04-24 12:10	Sample Matrix WATER WATER	Analysis Sulfide ☒ Sulfide ☒	Batch QC
Relinquished By: 			Date/Time: 4/5/24 7:50 4/5/24 11:01		
Received By: 			Date/Time: 4/5/24 07:50 4/5/24 11:12		
Form No: AL_subcoc					

x 2-250ml plastic NaOH end



ANALYTICAL REPORT

Lab Number:	L2418455
Client:	GEI Consultants 400 Unicorn Park Drive Woburn, MA 01801
ATTN:	Chris Coner
Phone:	(781) 721-4000
Project Name:	50 TUFTS STREET
Project Number:	045163
Report Date:	04/10/24

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418455

Report Date: 04/10/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2418455-01	045163-MW106	WATER	SOMERVILLE, MASSACHUSETTS	04/03/24 09:10	04/04/24
L2418455-02	045163-MW121D	WATER	SOMERVILLE, MASSACHUSETTS	04/03/24 09:20	04/04/24
L2418455-03	045163-MW121S	WATER	SOMERVILLE, MASSACHUSETTS	04/03/24 09:25	04/04/24
L2418455-04	045163-MW120D	WATER	SOMERVILLE, MASSACHUSETTS	04/03/24 09:40	04/04/24
L2418455-05	045163-MW201	WATER	SOMERVILLE, MASSACHUSETTS	04/03/24 10:20	04/04/24
L2418455-06	045163-MW102	WATER	SOMERVILLE, MASSACHUSETTS	04/03/24 10:35	04/04/24
L2418455-07	045163-MW116	WATER	SOMERVILLE, MASSACHUSETTS	04/03/24 11:20	04/04/24
L2418455-08	045163-MW900	WATER	SOMERVILLE, MASSACHUSETTS	04/03/24 11:22	04/04/24
L2418455-09	045163-MW202	WATER	SOMERVILLE, MASSACHUSETTS	04/03/24 11:30	04/04/24
L2418455-10	045163-MW103	WATER	SOMERVILLE, MASSACHUSETTS	04/03/24 11:35	04/04/24
L2418455-11	045163-GEO-5	WATER	SOMERVILLE, MASSACHUSETTS	04/03/24 12:45	04/04/24
L2418455-12	045163-GEO-6	WATER	SOMERVILLE, MASSACHUSETTS	04/03/24 13:25	04/04/24
L2418455-13	045163-SH-MW2R	WATER	SOMERVILLE, MASSACHUSETTS	04/03/24 13:45	04/04/24

Project Name: 50 TUFTS STREET

Lab Number: L2418455

Project Number: 045163

Report Date: 04/10/24

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES
For any questions answered "No", please refer to the case narrative section on the following page(s).		

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418455
Report Date: 04/10/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418455
Report Date: 04/10/24

Case Narrative (continued)

MCP Related Narratives

Volatile Organics

L2418455-07D, -08D, -11, -12D, and -13D: Initial calibration utilized a quadratic fit for: trans-1,3-dichloropropene, trichloroethene, cis-1,3-dichloropropene, bromoform

In reference to question G:

L2418455-07D, -08D, -12D, and -13D: One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

L2418455-01, -02, -03, -04, -05, -06, -09, and -10: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: cis-1,2-dichloroethene (0.1956), bromochloromethane (0.0877), bromodichloromethane (0.2628), 1,4-dioxane (0.0008), cis-1,3-dichloropropene (0.2962), 1,1,2-trichloroethane (0.1701), 1,2-dibromoethane (0.1851)

Average Response Factor: cis-1,2-dichloroethene, bromochloromethane, trichloroethene, bromodichloromethane, 1,4-dioxane, cis-1,3-dichloropropene, 1,1,2-trichloroethane, 1,2-dibromoethane

L2418455-07D, -08D, -11, -12D, and -13D: Initial Calibration did not meet:

Lowest Calibration Standard Minimum Response Factor: 1,4-dioxane (0.0015)

Average Response Factor: 1,4-dioxane

Verification: Carbon disulfide (65%)

L2418455-01 through -13D: The associated continuing calibration standard is outside the acceptance criteria for several compounds; however, it is within overall method allowances. Associated results are considered to be biased high if the %D is negative and biased low if the %D is positive. A copy of the continuing calibration standard is included as an addendum to this report.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Kelly O'Neill

Title: Technical Director/Representative

Date: 04/10/24

QC OUTLIER SUMMARY REPORT

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418455

Report Date: 04/10/24

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
MCP Volatile Organics - Westborough Lab								
8260D	Batch QC	WG1906246-3	1,4-Dioxane	LCS	132	70-130	01-06,09-10	potential high bias
8260D	Batch QC	WG1906246-4	tert-Butylbenzene	LCSD	21	20	01-06,09-10	non-directional bias
8260D	Batch QC	WG1906246-4	o-Chlorotoluene	LCSD	23	20	01-06,09-10	non-directional bias
8260D	Batch QC	WG1906246-4	p-Isopropyltoluene	LCSD	21	20	01-06,09-10	non-directional bias
8260D	Batch QC	WG1906385-3	1,4-Dioxane	LCS	132	70-130	07-08,11-13	potential high bias
8260D	Batch QC	WG1906385-4	1,4-Dioxane	LCSD	162	70-130	07-08,11-13	potential high bias

ORGANICS

VOLATILES

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-01
 Client ID: 045163-MW106
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 09:10
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/08/24 09:52

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	2.4		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	1.1		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-01
 Client ID: 045163-MW106
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 09:10
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	1.7		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2418455-01**Date Collected:** 04/03/24 09:10**Client ID:** 045163-MW106**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	115		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-02
 Client ID: 045163-MW121D
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 09:20
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/08/24 10:15

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	2.1		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	2.0		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-02
 Client ID: 045163-MW121D
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 09:20
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	2.8		ug/l	1.0	--	1
1,2-Dichloroethene, Total	2.8		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2418455-02**Date Collected:** 04/03/24 09:20**Client ID:** 045163-MW121D**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	117		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-03
 Client ID: 045163-MW121S
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 09:25
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/08/24 10:37

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-03
 Client ID: 045163-MW121S
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 09:25
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2418455-03**Date Collected:** 04/03/24 09:25**Client ID:** 045163-MW121S**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	118		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-04
 Client ID: 045163-MW120D
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 09:40
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/08/24 11:00

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	1.6		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	4.7		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	1.2		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-04
 Client ID: 045163-MW120D
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 09:40
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	2.0		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET

Lab Number: L2418455

Project Number: 045163

Report Date: 04/10/24

SAMPLE RESULTS

Lab ID: L2418455-04

Date Collected: 04/03/24 09:40

Client ID: 045163-MW120D

Date Received: 04/04/24

Sample Location: SOMERVILLE, MASSACHUSETTS

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	118		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-05
 Client ID: 045163-MW201
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 10:20
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/08/24 11:23

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	4.8		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	3.9		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	1.3		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-05
 Client ID: 045163-MW201
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 10:20
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	2.1		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2418455-05**Date Collected:** 04/03/24 10:20**Client ID:** 045163-MW201**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	117		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-06
 Client ID: 045163-MW102
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 10:35
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/08/24 11:46

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	13		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-06
 Client ID: 045163-MW102
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 10:35
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	1.3		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2418455-06**Date Collected:** 04/03/24 10:35**Client ID:** 045163-MW102**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	117		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-07 D
 Client ID: 045163-MW116
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 11:20
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/09/24 07:17

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	--	2.5
1,1-Dichloroethane	21		ug/l	2.5	--	2.5
Chloroform	ND		ug/l	2.5	--	2.5
Carbon tetrachloride	ND		ug/l	2.5	--	2.5
1,2-Dichloropropane	ND		ug/l	2.5	--	2.5
Dibromochloromethane	ND		ug/l	2.5	--	2.5
1,1,2-Trichloroethane	ND		ug/l	2.5	--	2.5
Tetrachloroethene	310		ug/l	2.5	--	2.5
Chlorobenzene	ND		ug/l	2.5	--	2.5
Trichlorofluoromethane	ND		ug/l	5.0	--	2.5
1,2-Dichloroethane	ND		ug/l	2.5	--	2.5
1,1,1-Trichloroethane	2.6		ug/l	2.5	--	2.5
Bromodichloromethane	ND		ug/l	2.5	--	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.0	--	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.0	--	2.5
1,3-Dichloropropene, Total	ND		ug/l	1.0	--	2.5
1,1-Dichloropropene	ND		ug/l	5.0	--	2.5
Bromoform	ND		ug/l	5.0	--	2.5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5
Benzene	ND		ug/l	1.2	--	2.5
Toluene	ND		ug/l	2.5	--	2.5
Ethylbenzene	ND		ug/l	2.5	--	2.5
Chloromethane	ND		ug/l	5.0	--	2.5
Bromomethane	ND		ug/l	5.0	--	2.5
Vinyl chloride	4.5		ug/l	2.5	--	2.5
Chloroethane	ND		ug/l	5.0	--	2.5
1,1-Dichloroethene	25		ug/l	2.5	--	2.5
trans-1,2-Dichloroethene	ND		ug/l	2.5	--	2.5

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-07 D
 Client ID: 045163-MW116
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 11:20
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	86		ug/l	2.5	--	2.5
1,2-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,3-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,4-Dichlorobenzene	ND		ug/l	2.5	--	2.5
Methyl tert butyl ether	ND		ug/l	5.0	--	2.5
p/m-Xylene	ND		ug/l	5.0	--	2.5
o-Xylene	ND		ug/l	2.5	--	2.5
Xylenes, Total	ND		ug/l	2.5	--	2.5
cis-1,2-Dichloroethene	56		ug/l	2.5	--	2.5
1,2-Dichloroethene, Total	56		ug/l	2.5	--	2.5
Dibromomethane	ND		ug/l	5.0	--	2.5
1,2,3-Trichloropropane	ND		ug/l	5.0	--	2.5
Styrene	ND		ug/l	2.5	--	2.5
Dichlorodifluoromethane	ND		ug/l	5.0	--	2.5
Acetone	ND		ug/l	12	--	2.5
Carbon disulfide	ND		ug/l	5.0	--	2.5
Methyl ethyl ketone	ND		ug/l	12	--	2.5
Methyl isobutyl ketone	ND		ug/l	12	--	2.5
2-Hexanone	ND		ug/l	12	--	2.5
Bromochloromethane	ND		ug/l	5.0	--	2.5
Tetrahydrofuran	ND		ug/l	5.0	--	2.5
2,2-Dichloropropane	ND		ug/l	5.0	--	2.5
1,2-Dibromoethane	ND		ug/l	5.0	--	2.5
1,3-Dichloropropane	ND		ug/l	5.0	--	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5
Bromobenzene	ND		ug/l	5.0	--	2.5
n-Butylbenzene	ND		ug/l	5.0	--	2.5
sec-Butylbenzene	ND		ug/l	5.0	--	2.5
tert-Butylbenzene	ND		ug/l	5.0	--	2.5
o-Chlorotoluene	ND		ug/l	5.0	--	2.5
p-Chlorotoluene	ND		ug/l	5.0	--	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	--	2.5
Hexachlorobutadiene	ND		ug/l	1.5	--	2.5
Isopropylbenzene	ND		ug/l	5.0	--	2.5
p-Isopropyltoluene	ND		ug/l	5.0	--	2.5
Naphthalene	ND		ug/l	5.0	--	2.5
n-Propylbenzene	ND		ug/l	5.0	--	2.5

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-07 D
 Client ID: 045163-MW116
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 11:20
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	5.0	--	2.5
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	2.5
1,3,5-Trimethylbenzene	ND		ug/l	5.0	--	2.5
1,2,4-Trimethylbenzene	ND		ug/l	5.0	--	2.5
Diethyl ether	ND		ug/l	5.0	--	2.5
Diisopropyl Ether	ND		ug/l	5.0	--	2.5
Ethyl-Tert-Butyl-Ether	ND		ug/l	5.0	--	2.5
Tertiary-Amyl Methyl Ether	ND		ug/l	5.0	--	2.5
1,4-Dioxane	ND		ug/l	620	--	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	99		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-08 D
 Client ID: 045163-MW900
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 11:22
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/09/24 07:45

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	4.0	--	2
1,1-Dichloroethane	22		ug/l	2.0	--	2
Chloroform	ND		ug/l	2.0	--	2
Carbon tetrachloride	ND		ug/l	2.0	--	2
1,2-Dichloropropane	ND		ug/l	2.0	--	2
Dibromochloromethane	ND		ug/l	2.0	--	2
1,1,2-Trichloroethane	ND		ug/l	2.0	--	2
Tetrachloroethene	340		ug/l	2.0	--	2
Chlorobenzene	ND		ug/l	2.0	--	2
Trichlorofluoromethane	ND		ug/l	4.0	--	2
1,2-Dichloroethane	ND		ug/l	2.0	--	2
1,1,1-Trichloroethane	2.7		ug/l	2.0	--	2
Bromodichloromethane	ND		ug/l	2.0	--	2
trans-1,3-Dichloropropene	ND		ug/l	0.80	--	2
cis-1,3-Dichloropropene	ND		ug/l	0.80	--	2
1,3-Dichloropropene, Total	ND		ug/l	0.80	--	2
1,1-Dichloropropene	ND		ug/l	4.0	--	2
Bromoform	ND		ug/l	4.0	--	2
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	--	2
Benzene	ND		ug/l	1.0	--	2
Toluene	ND		ug/l	2.0	--	2
Ethylbenzene	ND		ug/l	2.0	--	2
Chloromethane	ND		ug/l	4.0	--	2
Bromomethane	ND		ug/l	4.0	--	2
Vinyl chloride	4.5		ug/l	2.0	--	2
Chloroethane	ND		ug/l	4.0	--	2
1,1-Dichloroethene	26		ug/l	2.0	--	2
trans-1,2-Dichloroethene	ND		ug/l	2.0	--	2

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-08 D
 Client ID: 045163-MW900
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 11:22
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	90		ug/l	2.0	--	2
1,2-Dichlorobenzene	ND		ug/l	2.0	--	2
1,3-Dichlorobenzene	ND		ug/l	2.0	--	2
1,4-Dichlorobenzene	ND		ug/l	2.0	--	2
Methyl tert butyl ether	ND		ug/l	4.0	--	2
p/m-Xylene	ND		ug/l	4.0	--	2
o-Xylene	ND		ug/l	2.0	--	2
Xylenes, Total	ND		ug/l	2.0	--	2
cis-1,2-Dichloroethene	57		ug/l	2.0	--	2
1,2-Dichloroethene, Total	57		ug/l	2.0	--	2
Dibromomethane	ND		ug/l	4.0	--	2
1,2,3-Trichloropropane	ND		ug/l	4.0	--	2
Styrene	ND		ug/l	2.0	--	2
Dichlorodifluoromethane	ND		ug/l	4.0	--	2
Acetone	ND		ug/l	10	--	2
Carbon disulfide	ND		ug/l	4.0	--	2
Methyl ethyl ketone	ND		ug/l	10	--	2
Methyl isobutyl ketone	ND		ug/l	10	--	2
2-Hexanone	ND		ug/l	10	--	2
Bromochloromethane	ND		ug/l	4.0	--	2
Tetrahydrofuran	ND		ug/l	4.0	--	2
2,2-Dichloropropane	ND		ug/l	4.0	--	2
1,2-Dibromoethane	ND		ug/l	4.0	--	2
1,3-Dichloropropane	ND		ug/l	4.0	--	2
1,1,1,2-Tetrachloroethane	ND		ug/l	2.0	--	2
Bromobenzene	ND		ug/l	4.0	--	2
n-Butylbenzene	ND		ug/l	4.0	--	2
sec-Butylbenzene	ND		ug/l	4.0	--	2
tert-Butylbenzene	ND		ug/l	4.0	--	2
o-Chlorotoluene	ND		ug/l	4.0	--	2
p-Chlorotoluene	ND		ug/l	4.0	--	2
1,2-Dibromo-3-chloropropane	ND		ug/l	4.0	--	2
Hexachlorobutadiene	ND		ug/l	1.2	--	2
Isopropylbenzene	ND		ug/l	4.0	--	2
p-Isopropyltoluene	ND		ug/l	4.0	--	2
Naphthalene	ND		ug/l	4.0	--	2
n-Propylbenzene	ND		ug/l	4.0	--	2

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-08 D
 Client ID: 045163-MW900
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 11:22
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	4.0	--	2
1,2,4-Trichlorobenzene	ND		ug/l	4.0	--	2
1,3,5-Trimethylbenzene	ND		ug/l	4.0	--	2
1,2,4-Trimethylbenzene	ND		ug/l	4.0	--	2
Diethyl ether	ND		ug/l	4.0	--	2
Diisopropyl Ether	ND		ug/l	4.0	--	2
Ethyl-Tert-Butyl-Ether	ND		ug/l	4.0	--	2
Tertiary-Amyl Methyl Ether	ND		ug/l	4.0	--	2
1,4-Dioxane	ND		ug/l	500	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	98		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-09
 Client ID: 045163-MW202
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 11:30
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/08/24 12:09

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	9.4		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	1.4		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-09
 Client ID: 045163-MW202
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 11:30
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2418455-09**Date Collected:** 04/03/24 11:30**Client ID:** 045163-MW202**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	116		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-10
 Client ID: 045163-MW103
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 11:35
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/08/24 12:32

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	43		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-10
 Client ID: 045163-MW103
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 11:35
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	3.5		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2418455-10**Date Collected:** 04/03/24 11:35**Client ID:** 045163-MW103**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	120		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	115		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-11
 Client ID: 045163-GEO-5
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 12:45
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 141,8260D
 Analytical Date: 04/09/24 06:50
 Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	100		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.40	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.40	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.40	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-11
 Client ID: 045163-GEO-5
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 12:45
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	2.0		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
Methyl ethyl ketone	ND		ug/l	5.0	--	1
Methyl isobutyl ketone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS****Lab ID:** L2418455-11**Date Collected:** 04/03/24 12:45**Client ID:** 045163-GEO-5**Date Received:** 04/04/24**Sample Location:** SOMERVILLE, MASSACHUSETTS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1
Diethyl ether	ND		ug/l	2.0	--	1
Diisopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
1,4-Dioxane	ND		ug/l	250	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	100		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-12 D
 Client ID: 045163-GEO-6
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 13:25
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/09/24 08:12

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	20	--	10
1,1-Dichloroethane	ND		ug/l	10	--	10
Chloroform	ND		ug/l	10	--	10
Carbon tetrachloride	ND		ug/l	10	--	10
1,2-Dichloropropane	ND		ug/l	10	--	10
Dibromochloromethane	ND		ug/l	10	--	10
1,1,2-Trichloroethane	ND		ug/l	10	--	10
Tetrachloroethene	1900		ug/l	10	--	10
Chlorobenzene	ND		ug/l	10	--	10
Trichlorofluoromethane	ND		ug/l	20	--	10
1,2-Dichloroethane	ND		ug/l	10	--	10
1,1,1-Trichloroethane	ND		ug/l	10	--	10
Bromodichloromethane	ND		ug/l	10	--	10
trans-1,3-Dichloropropene	ND		ug/l	4.0	--	10
cis-1,3-Dichloropropene	ND		ug/l	4.0	--	10
1,3-Dichloropropene, Total	ND		ug/l	4.0	--	10
1,1-Dichloropropene	ND		ug/l	20	--	10
Bromoform	ND		ug/l	20	--	10
1,1,2,2-Tetrachloroethane	ND		ug/l	10	--	10
Benzene	ND		ug/l	5.0	--	10
Toluene	ND		ug/l	10	--	10
Ethylbenzene	ND		ug/l	10	--	10
Chloromethane	ND		ug/l	20	--	10
Bromomethane	ND		ug/l	20	--	10
Vinyl chloride	ND		ug/l	10	--	10
Chloroethane	ND		ug/l	20	--	10
1,1-Dichloroethene	ND		ug/l	10	--	10
trans-1,2-Dichloroethene	ND		ug/l	10	--	10

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-12 D
 Client ID: 045163-GEO-6
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 13:25
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	37		ug/l	10	--	10
1,2-Dichlorobenzene	ND		ug/l	10	--	10
1,3-Dichlorobenzene	ND		ug/l	10	--	10
1,4-Dichlorobenzene	ND		ug/l	10	--	10
Methyl tert butyl ether	ND		ug/l	20	--	10
p/m-Xylene	ND		ug/l	20	--	10
o-Xylene	ND		ug/l	10	--	10
Xylenes, Total	ND		ug/l	10	--	10
cis-1,2-Dichloroethene	ND		ug/l	10	--	10
1,2-Dichloroethene, Total	ND		ug/l	10	--	10
Dibromomethane	ND		ug/l	20	--	10
1,2,3-Trichloropropane	ND		ug/l	20	--	10
Styrene	ND		ug/l	10	--	10
Dichlorodifluoromethane	ND		ug/l	20	--	10
Acetone	ND		ug/l	50	--	10
Carbon disulfide	ND		ug/l	20	--	10
Methyl ethyl ketone	ND		ug/l	50	--	10
Methyl isobutyl ketone	ND		ug/l	50	--	10
2-Hexanone	ND		ug/l	50	--	10
Bromochloromethane	ND		ug/l	20	--	10
Tetrahydrofuran	ND		ug/l	20	--	10
2,2-Dichloropropane	ND		ug/l	20	--	10
1,2-Dibromoethane	ND		ug/l	20	--	10
1,3-Dichloropropane	ND		ug/l	20	--	10
1,1,1,2-Tetrachloroethane	ND		ug/l	10	--	10
Bromobenzene	ND		ug/l	20	--	10
n-Butylbenzene	ND		ug/l	20	--	10
sec-Butylbenzene	ND		ug/l	20	--	10
tert-Butylbenzene	ND		ug/l	20	--	10
o-Chlorotoluene	ND		ug/l	20	--	10
p-Chlorotoluene	ND		ug/l	20	--	10
1,2-Dibromo-3-chloropropane	ND		ug/l	20	--	10
Hexachlorobutadiene	ND		ug/l	6.0	--	10
Isopropylbenzene	ND		ug/l	20	--	10
p-Isopropyltoluene	ND		ug/l	20	--	10
Naphthalene	ND		ug/l	20	--	10
n-Propylbenzene	ND		ug/l	20	--	10

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-12 D
 Client ID: 045163-GEO-6
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 13:25
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	20	--	10
1,2,4-Trichlorobenzene	ND		ug/l	20	--	10
1,3,5-Trimethylbenzene	ND		ug/l	20	--	10
1,2,4-Trimethylbenzene	ND		ug/l	20	--	10
Diethyl ether	ND		ug/l	20	--	10
Diisopropyl Ether	ND		ug/l	20	--	10
Ethyl-Tert-Butyl-Ether	ND		ug/l	20	--	10
Tertiary-Amyl Methyl Ether	ND		ug/l	20	--	10
1,4-Dioxane	ND		ug/l	2500	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	103		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-13 D
 Client ID: 045163-SH-MW2R
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 13:45
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 141,8260D

Analytical Date: 04/09/24 12:22

Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	40	--	20
1,1-Dichloroethane	ND		ug/l	20	--	20
Chloroform	ND		ug/l	20	--	20
Carbon tetrachloride	ND		ug/l	20	--	20
1,2-Dichloropropane	ND		ug/l	20	--	20
Dibromochloromethane	ND		ug/l	20	--	20
1,1,2-Trichloroethane	ND		ug/l	20	--	20
Tetrachloroethene	2500		ug/l	20	--	20
Chlorobenzene	ND		ug/l	20	--	20
Trichlorofluoromethane	ND		ug/l	40	--	20
1,2-Dichloroethane	ND		ug/l	20	--	20
1,1,1-Trichloroethane	ND		ug/l	20	--	20
Bromodichloromethane	ND		ug/l	20	--	20
trans-1,3-Dichloropropene	ND		ug/l	8.0	--	20
cis-1,3-Dichloropropene	ND		ug/l	8.0	--	20
1,3-Dichloropropene, Total	ND		ug/l	8.0	--	20
1,1-Dichloropropene	ND		ug/l	40	--	20
Bromoform	ND		ug/l	40	--	20
1,1,2,2-Tetrachloroethane	ND		ug/l	20	--	20
Benzene	ND		ug/l	10	--	20
Toluene	ND		ug/l	20	--	20
Ethylbenzene	ND		ug/l	20	--	20
Chloromethane	ND		ug/l	40	--	20
Bromomethane	ND		ug/l	40	--	20
Vinyl chloride	ND		ug/l	20	--	20
Chloroethane	ND		ug/l	40	--	20
1,1-Dichloroethene	ND		ug/l	20	--	20
trans-1,2-Dichloroethene	ND		ug/l	20	--	20

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-13 D
 Client ID: 045163-SH-MW2R
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 13:45
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	42		ug/l	20	--	20
1,2-Dichlorobenzene	ND		ug/l	20	--	20
1,3-Dichlorobenzene	ND		ug/l	20	--	20
1,4-Dichlorobenzene	ND		ug/l	20	--	20
Methyl tert butyl ether	ND		ug/l	40	--	20
p/m-Xylene	ND		ug/l	40	--	20
o-Xylene	ND		ug/l	20	--	20
Xylenes, Total	ND		ug/l	20	--	20
cis-1,2-Dichloroethene	ND		ug/l	20	--	20
1,2-Dichloroethene, Total	ND		ug/l	20	--	20
Dibromomethane	ND		ug/l	40	--	20
1,2,3-Trichloropropane	ND		ug/l	40	--	20
Styrene	ND		ug/l	20	--	20
Dichlorodifluoromethane	ND		ug/l	40	--	20
Acetone	ND		ug/l	100	--	20
Carbon disulfide	ND		ug/l	40	--	20
Methyl ethyl ketone	ND		ug/l	100	--	20
Methyl isobutyl ketone	ND		ug/l	100	--	20
2-Hexanone	ND		ug/l	100	--	20
Bromochloromethane	ND		ug/l	40	--	20
Tetrahydrofuran	ND		ug/l	40	--	20
2,2-Dichloropropane	ND		ug/l	40	--	20
1,2-Dibromoethane	ND		ug/l	40	--	20
1,3-Dichloropropane	ND		ug/l	40	--	20
1,1,1,2-Tetrachloroethane	ND		ug/l	20	--	20
Bromobenzene	ND		ug/l	40	--	20
n-Butylbenzene	ND		ug/l	40	--	20
sec-Butylbenzene	ND		ug/l	40	--	20
tert-Butylbenzene	ND		ug/l	40	--	20
o-Chlorotoluene	ND		ug/l	40	--	20
p-Chlorotoluene	ND		ug/l	40	--	20
1,2-Dibromo-3-chloropropane	ND		ug/l	40	--	20
Hexachlorobutadiene	ND		ug/l	12	--	20
Isopropylbenzene	ND		ug/l	40	--	20
p-Isopropyltoluene	ND		ug/l	40	--	20
Naphthalene	ND		ug/l	40	--	20
n-Propylbenzene	ND		ug/l	40	--	20

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**SAMPLE RESULTS**

Lab ID: L2418455-13 D
 Client ID: 045163-SH-MW2R
 Sample Location: SOMERVILLE, MASSACHUSETTS

Date Collected: 04/03/24 13:45
 Date Received: 04/04/24
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	40	--	20
1,2,4-Trichlorobenzene	ND		ug/l	40	--	20
1,3,5-Trimethylbenzene	ND		ug/l	40	--	20
1,2,4-Trimethylbenzene	ND		ug/l	40	--	20
Diethyl ether	ND		ug/l	40	--	20
Diisopropyl Ether	ND		ug/l	40	--	20
Ethyl-Tert-Butyl-Ether	ND		ug/l	40	--	20
Tertiary-Amyl Methyl Ether	ND		ug/l	40	--	20
1,4-Dioxane	ND		ug/l	5000	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	94		70-130

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418455
Report Date: 04/10/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 04/08/24 04:56
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-06,09-10 Batch: WG1906246-5					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.40	--
cis-1,3-Dichloropropene	ND		ug/l	0.40	--
1,3-Dichloropropene, Total	ND		ug/l	0.40	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418455
Report Date: 04/10/24

Method Blank Analysis Batch Quality Control

Analytical Method: 141,8260D
 Analytical Date: 04/08/24 04:56
 Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-06,09-10 Batch: WG1906246-5					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
Methyl ethyl ketone	ND		ug/l	5.0	--
Methyl isobutyl ketone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418455
Report Date: 04/10/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 04/08/24 04:56
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-06,09-10 Batch: WG1906246-5					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Diethyl ether	ND		ug/l	2.0	--
Diisopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	114		70-130

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418455
Report Date: 04/10/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 04/09/24 05:27
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 07-08,11-13 Batch: WG1906385-5					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.40	--
cis-1,3-Dichloropropene	ND		ug/l	0.40	--
1,3-Dichloropropene, Total	ND		ug/l	0.40	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418455
Report Date: 04/10/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 04/09/24 05:27
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 07-08,11-13 Batch: WG1906385-5					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
Methyl ethyl ketone	ND		ug/l	5.0	--
Methyl isobutyl ketone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418455
Report Date: 04/10/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 141,8260D
Analytical Date: 04/09/24 05:27
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 07-08,11-13 Batch: WG1906385-5					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Diethyl ether	ND		ug/l	2.0	--
Diisopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	119		70-130

Lab Control Sample Analysis Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418455

Report Date: 04/10/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-06,09-10 Batch: WG1906246-3 WG1906246-4								
Methylene chloride	100		94		70-130	6		20
1,1-Dichloroethane	100		87		70-130	14		20
Chloroform	110		93		70-130	17		20
Carbon tetrachloride	100		88		70-130	13		20
1,2-Dichloropropane	89		78		70-130	13		20
Dibromochloromethane	96		81		70-130	17		20
1,1,2-Trichloroethane	93		82		70-130	13		20
Tetrachloroethene	94		79		70-130	17		20
Chlorobenzene	97		80		70-130	19		20
Trichlorofluoromethane	110		99		70-130	11		20
1,2-Dichloroethane	99		90		70-130	10		20
1,1,1-Trichloroethane	100		94		70-130	6		20
Bromodichloromethane	98		87		70-130	12		20
trans-1,3-Dichloropropene	91		77		70-130	17		20
cis-1,3-Dichloropropene	86		76		70-130	12		20
1,1-Dichloropropene	94		81		70-130	15		20
Bromoform	93		76		70-130	20		20
1,1,2,2-Tetrachloroethane	98		84		70-130	15		20
Benzene	96		82		70-130	16		20
Toluene	100		83		70-130	19		20
Ethylbenzene	98		83		70-130	17		20
Chloromethane	95		80		70-130	17		20
Bromomethane	110		96		70-130	14		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418455

Report Date: 04/10/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-06,09-10 Batch: WG1906246-3 WG1906246-4								
Vinyl chloride	93		78		70-130	18		20
Chloroethane	97		83		70-130	16		20
1,1-Dichloroethene	110		95		70-130	15		20
trans-1,2-Dichloroethene	110		92		70-130	18		20
Trichloroethene	98		82		70-130	18		20
1,2-Dichlorobenzene	96		81		70-130	17		20
1,3-Dichlorobenzene	97		80		70-130	19		20
1,4-Dichlorobenzene	100		82		70-130	20		20
Methyl tert butyl ether	97		86		70-130	12		20
p/m-Xylene	95		80		70-130	17		20
o-Xylene	95		80		70-130	17		20
cis-1,2-Dichloroethene	99		88		70-130	12		20
Dibromomethane	100		90		70-130	11		20
1,2,3-Trichloropropane	99		84		70-130	16		20
Styrene	100		85		70-130	16		20
Dichlorodifluoromethane	110		91		70-130	19		20
Acetone	120		110		70-130	9		20
Carbon disulfide	100		88		70-130	13		20
Methyl ethyl ketone	100		92		70-130	8		20
Methyl isobutyl ketone	79		71		70-130	11		20
2-Hexanone	84		73		70-130	14		20
Bromochloromethane	100		87		70-130	14		20
Tetrahydrofuran	100		92		70-130	8		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418455

Report Date: 04/10/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-06,09-10 Batch: WG1906246-3 WG1906246-4								
2,2-Dichloropropane	100		87		70-130	14		20
1,2-Dibromoethane	91		80		70-130	13		20
1,3-Dichloropropane	92		80		70-130	14		20
1,1,1,2-Tetrachloroethane	88		74		70-130	17		20
Bromobenzene	94		79		70-130	17		20
n-Butylbenzene	100		85		70-130	16		20
sec-Butylbenzene	100		82		70-130	20		20
tert-Butylbenzene	98		79		70-130	21	Q	20
o-Chlorotoluene	110		87		70-130	23	Q	20
p-Chlorotoluene	100		88		70-130	13		20
1,2-Dibromo-3-chloropropane	88		78		70-130	12		20
Hexachlorobutadiene	100		82		70-130	20		20
Isopropylbenzene	95		78		70-130	20		20
p-Isopropyltoluene	99		80		70-130	21	Q	20
Naphthalene	88		76		70-130	15		20
n-Propylbenzene	100		84		70-130	17		20
1,2,3-Trichlorobenzene	91		78		70-130	15		20
1,2,4-Trichlorobenzene	88		73		70-130	19		20
1,3,5-Trimethylbenzene	98		81		70-130	19		20
1,2,4-Trimethylbenzene	98		81		70-130	19		20
Diethyl ether	95		84		70-130	12		20
Diisopropyl Ether	92		81		70-130	13		20
Ethyl-Tert-Butyl-Ether	80		72		70-130	11		20

Lab Control Sample Analysis Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418455

Report Date: 04/10/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-06,09-10 Batch: WG1906246-3 WG1906246-4								
Tertiary-Amyl Methyl Ether	78		71		70-130	9		20
1,4-Dioxane	132	Q	108		70-130	20		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	107		111		70-130
Toluene-d8	98		95		70-130
4-Bromofluorobenzene	97		96		70-130
Dibromofluoromethane	105		105		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418455

Report Date: 04/10/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 07-08,11-13 Batch: WG1906385-3 WG1906385-4								
Methylene chloride	120		120		70-130	0		20
1,1-Dichloroethane	120		120		70-130	0		20
Chloroform	110		110		70-130	0		20
Carbon tetrachloride	110		110		70-130	0		20
1,2-Dichloropropane	110		110		70-130	0		20
Dibromochloromethane	100		100		70-130	0		20
1,1,2-Trichloroethane	100		100		70-130	0		20
Tetrachloroethene	110		110		70-130	0		20
Chlorobenzene	110		110		70-130	0		20
Trichlorofluoromethane	120		120		70-130	0		20
1,2-Dichloroethane	120		120		70-130	0		20
1,1,1-Trichloroethane	120		120		70-130	0		20
Bromodichloromethane	120		110		70-130	9		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
1,1-Dichloropropene	120		120		70-130	0		20
Bromoform	95		98		70-130	3		20
1,1,2,2-Tetrachloroethane	100		100		70-130	0		20
Benzene	110		110		70-130	0		20
Toluene	110		110		70-130	0		20
Ethylbenzene	110		110		70-130	0		20
Chloromethane	130		120		70-130	8		20
Bromomethane	86		97		70-130	12		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418455

Report Date: 04/10/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 07-08,11-13 Batch: WG1906385-3 WG1906385-4								
Vinyl chloride	120		120		70-130	0		20
Chloroethane	110		110		70-130	0		20
1,1-Dichloroethene	110		120		70-130	9		20
trans-1,2-Dichloroethene	120		120		70-130	0		20
Trichloroethene	110		110		70-130	0		20
1,2-Dichlorobenzene	110		110		70-130	0		20
1,3-Dichlorobenzene	110		110		70-130	0		20
1,4-Dichlorobenzene	110		110		70-130	0		20
Methyl tert butyl ether	100		110		70-130	10		20
p/m-Xylene	110		110		70-130	0		20
o-Xylene	110		110		70-130	0		20
cis-1,2-Dichloroethene	110		110		70-130	0		20
Dibromomethane	110		110		70-130	0		20
1,2,3-Trichloropropane	100		100		70-130	0		20
Styrene	105		110		70-130	5		20
Dichlorodifluoromethane	130		120		70-130	8		20
Acetone	120		120		70-130	0		20
Carbon disulfide	120		120		70-130	0		20
Methyl ethyl ketone	100		120		70-130	18		20
Methyl isobutyl ketone	100		100		70-130	0		20
2-Hexanone	110		110		70-130	0		20
Bromochloromethane	110		110		70-130	0		20
Tetrahydrofuran	120		110		70-130	9		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418455

Report Date: 04/10/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 07-08,11-13 Batch: WG1906385-3 WG1906385-4								
2,2-Dichloropropane	120		120		70-130	0		20
1,2-Dibromoethane	110		110		70-130	0		20
1,3-Dichloropropane	110		110		70-130	0		20
1,1,1,2-Tetrachloroethane	100		100		70-130	0		20
Bromobenzene	110		110		70-130	0		20
n-Butylbenzene	110		110		70-130	0		20
sec-Butylbenzene	110		110		70-130	0		20
tert-Butylbenzene	110		110		70-130	0		20
o-Chlorotoluene	110		110		70-130	0		20
p-Chlorotoluene	110		110		70-130	0		20
1,2-Dibromo-3-chloropropane	95		100		70-130	5		20
Hexachlorobutadiene	110		110		70-130	0		20
Isopropylbenzene	110		110		70-130	0		20
p-Isopropyltoluene	110		110		70-130	0		20
Naphthalene	100		100		70-130	0		20
n-Propylbenzene	110		110		70-130	0		20
1,2,3-Trichlorobenzene	110		110		70-130	0		20
1,2,4-Trichlorobenzene	100		110		70-130	10		20
1,3,5-Trimethylbenzene	110		110		70-130	0		20
1,2,4-Trimethylbenzene	110		110		70-130	0		20
Diethyl ether	110		110		70-130	0		20
Diisopropyl Ether	110		110		70-130	0		20
Ethyl-Tert-Butyl-Ether	100		99		70-130	1		20

Lab Control Sample Analysis Batch Quality Control

Project Name: 50 TUFTS STREET

Project Number: 045163

Lab Number: L2418455

Report Date: 04/10/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 07-08,11-13 Batch: WG1906385-3 WG1906385-4								
Tertiary-Amyl Methyl Ether	100		99		70-130	1		20
1,4-Dioxane	132	Q	162	Q	70-130	20		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		101		70-130
Toluene-d8	101		100		70-130
4-Bromofluorobenzene	103		101		70-130
Dibromofluoromethane	104		103		70-130

Project Name: 50 TUFTS STREET**Lab Number:** L2418455**Project Number:** 045163**Report Date:** 04/10/24**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information**Cooler** **Custody Seal**

A Absent

B Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2418455-01A	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-01B	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-01C	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-02A	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-02B	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-02C	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-03A	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-03B	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-03C	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-04A	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-04B	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-04C	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-05A	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-05B	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-05C	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-06A	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-06B	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-06C	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-07A	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-07B	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-07C	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-08A	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)

Project Name: 50 TUFTS STREET
Project Number: 045163

Serial_No:04102418:58
Lab Number: L2418455
Report Date: 04/10/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2418455-08B	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-08C	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-09A	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-09B	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-09C	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-10A	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-10B	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-10C	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-11A	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-11B	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-11C	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-12A	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-12B	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-12C	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-13A	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-13B	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)
L2418455-13C	Vial HCl preserved	B	NA		2.7	Y	Absent		MCP-8260-21(14)

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418455
Report Date: 04/10/24

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report



Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418455
Report Date: 04/10/24

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report



Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418455
Report Date: 04/10/24

Data Qualifiers

- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: 50 TUFTS STREET
Project Number: 045163

Lab Number: L2418455
Report Date: 04/10/24

REFERENCES

- 141 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA and IIB, November 2021.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.

ID No.:17873

Facility: **Company-wide**

Revision 20

Department: **Quality Assurance**

Published Date: 6/16/2023 4:52:28 PM

Title: **Certificate/Approval Program Summary**

Page 1 of 1

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625.1:** alpha-Terpineol**EPA 8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables).**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

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C2418455



400 Unicorn Park Drive
Woburn, MA 01801
PH: 781.721.4000

Project Information

Project Name: 50 Tufts Street

Project Location: Somerville, Massachusetts

Project Number: 045163

Project Manager: Chris Coner
cconer@geiconsultants.com

Send Report to: Molly Forrest, Chris Coner

labdata@geiconsultants.com

Preservative

HCl

**MCP PRESUMPTIVE CERTAINTY AND
MCP ANALYTICAL METHODS REQUIRED:**

☒ YES ☐ NO

STATE AND FEDERAL REGULATORY REQUIREMENTS/REPORT LIMITS

State/Federal Program: MA 401WQC Other _____ NH RI CT NY ME

MA MCP Criteria are Method 1 S-1 and GW-2/GW-3. Circle if GW-1 is required.

Page 2 of 2

Sample Handling

Samples Field
Filtered

YES ☒ NO ☐ NA ☐

Sampled Shipped
With Ice

☒ YES ☐ NO

[illegible]

VOCs 8260

Relinquished by sampler: (signature)	Date :	Time :	Received by: (signature)
1. Nicholas Houder	4/3/24	14:30	1. GEI Sample Fridge
Relinquished by sampler: (signature)	Date :	Time :	Received by: (signature)
2. Erika	4/4/24	15	2. Sam Jans
Relinquished by: (signature)	Date :	Time :	Received by: (signature)
3. Sam Janson	4/4/24	2:50	3. Phil
Relinquished by: (signature)	Date :	Time :	Received by: (signature)
4. Phil	4/4/24	17	4. Lyli
Relinquished by: (signature)	Date :	Time :	Received by: (signature)
5.			5.

Turnaround Time
(Business days):

Standard-Day X 4-Day 3-Day
2-Day 1-Day Other

Before submitting rush turnaround samples, you **must** notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

Sample Matrix Abbreviations: SO = Soil GW = Groundwater SW = Surface Water SD = Sediment CO = Concrete PC = Paint Chip CLK = Caulk

Method Blank Summary

Form 4

Volatiles

Client	: GEI Consultants	Lab Number	: L2418455
Project Name	: 50 TUFTS STREET	Project Number	: 045163
Lab Sample ID	: WG1906246-5	Lab File ID	: VQ240408A05
Instrument ID	: QUIMBY		
Matrix	: WATER	Analysis Date	: 04/08/24 04:56

Client Sample No.	Lab Sample ID	Analysis Date
WG1906246-3LCS	WG1906246-3	04/08/24 03:25
WG1906246-4LCSD	WG1906246-4	04/08/24 03:48
045163-MW106	L2418455-01	04/08/24 09:52
045163-MW121D	L2418455-02	04/08/24 10:15
045163-MW121S	L2418455-03	04/08/24 10:37
045163-MW120D	L2418455-04	04/08/24 11:00
045163-MW201	L2418455-05	04/08/24 11:23
045163-MW102	L2418455-06	04/08/24 11:46
045163-MW202	L2418455-09	04/08/24 12:09
045163-MW103	L2418455-10	04/08/24 12:32

Method Blank Summary Form 4 Volatiles

Client	: GEI Consultants	Lab Number	: L2418455
Project Name	: 50 TUFTS STREET	Project Number	: 045163
Lab Sample ID	: WG1906385-5	Lab File ID	: J240409A05
Instrument ID	: JACK2		
Matrix	: WATER	Analysis Date	: 04/09/24 05:27

Client Sample No.	Lab Sample ID	Analysis Date
WG1906385-3LCS	WG1906385-3	04/09/24 03:37
WG1906385-4LCSD	WG1906385-4	04/09/24 04:05
045163-GEO-5	L2418455-11	04/09/24 06:50
045163-MW116	L2418455-07D	04/09/24 07:17
045163-MW900	L2418455-08D	04/09/24 07:45
045163-GEO-6	L2418455-12D	04/09/24 08:12
045163-SH-MW2R	L2418455-13D	04/09/24 12:22

Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : QUIMBY
 Lab File ID : VQ240408A01
 Sample No : WG1906246-2
 Channel :

Lab Number : L2418455
 Project Number : 045163
 Calibration Date : 04/08/24 03:25
 Init. Calib. Date(s) : 02/22/24 02/22/24
 Init. Calib. Times : 04:41 07:20

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	60	0
Dichlorodifluoromethane	0.215	0.231	-	-7.4	20	67	0
Chloromethane	0.275	0.261	-	5.1	20	58	0
Vinyl chloride	0.235	0.219	-	6.8	20	59	0
Bromomethane	0.094	0.104	-	-10.6	20	71	0
Chloroethane	0.124	0.12	-	3.2	20	58	-.01
Trichlorofluoromethane	0.228	0.257	-	-12.7	20	68	0
Ethyl ether	0.083	0.079	-	4.8	20	59	0
1,1-Dichloroethene	0.138	0.149	-	-8	20	66	0
Carbon disulfide	0.405	0.428	-	-5.7	20	64	0
Freon-113	0.144	0.16	-	-11.1	20	68	0
Methylene chloride	0.156	0.164	-	-5.1	20	64	0
Acetone	10	12.151	-	-21.5*	20	71	0
trans-1,2-Dichloroethene	0.15	0.159	-	-6	20	66	0
Methyl acetate	0.095	0.095	-	0	20	63	0
Methyl tert-butyl ether	0.403	0.39	-	3.2	20	59	0
tert-Butyl alcohol	50	65.671	-	-31.3*	20	84	0
Diisopropyl ether	0.7	0.645	-	7.9	20	57	0
1,1-Dichloroethane	0.38	0.387	-	-1.8	20	61	0
Halothane	0.134	0.136	-	-1.5	20	63	0
Acrylonitrile	10	10.373	-	-3.7	20	63	-.01
Ethyl tert-butyl ether	0.614	0.49	-	20.2*	20	49	0
Vinyl acetate	0.395	0.37	-	6.3	20	57	-.01
cis-1,2-Dichloroethene	0.189	0.188*	-	0.5	20	61	0
2,2-Dichloropropane	0.299	0.299	-	0	20	61	0
Bromochloromethane	0.085	0.09*	-	-5.9	20	63	-.01
Cyclohexane	0.371	0.346	-	6.7	20	57	0
Chloroform	0.305	0.323	-	-5.9	20	64	0
Ethyl acetate	0.134	0.128	-	4.5	20	58	0
Carbon tetrachloride	0.245	0.256	-	-4.5	20	64	0
Tetrahydrofuran	10	10.293	-	-2.9	20	62	0
Dibromofluoromethane	0.259	0.271	-	-4.6	20	62	0
1,1,1-Trichloroethane	0.276	0.292	-	-5.8	20	65	0
2-Butanone	10	9.953	-	0.5	20	61	0
1,1-Dichloropropene	0.24	0.226	-	5.8	20	56	0
Benzene	0.704	0.673	-	4.4	20	60	0
tert-Amyl methyl ether	0.446	0.35	-	21.5*	20	49	-.01
1,2-Dichloroethane-d4	0.324	0.348	-	-7.4	20	62	0
1,2-Dichloroethane	0.258	0.256	-	0.8	20	59	0
Methyl cyclohexane	0.289	0.258	-	10.7	20	57	0
Trichloroethene	0.182	0.179*	-	1.6	20	64	0
Dibromomethane	0.096	0.096	-	0	20	60	-.01
1,2-Dichloropropane	0.208	0.185	-	11.1	20	54	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : QUIMBY
 Lab File ID : VQ240408A01
 Sample No : WG1906246-2
 Channel :

Lab Number : L2418455
 Project Number : 045163
 Calibration Date : 04/08/24 03:25
 Init. Calib. Date(s) : 02/22/24 02/22/24
 Init. Calib. Times : 04:41 07:20

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Bromodichloromethane	0.245	0.24*	-	2	20	62	0
1,4-Dioxane	0.00078	0.00104*	-	-33.3*	20	75	0
cis-1,3-Dichloropropene	0.291	0.25*	-	14.1	20	53	0
Chlorobenzene-d5	1	1	-	0	20	58	0
Toluene-d8	1.349	1.318	-	2.3	20	57	0
Toluene	0.577	0.578	-	-0.2	20	59	0
4-Methyl-2-pentanone	0.067	0.053	-	20.9*	20	49	-.01
Tetrachloroethene	0.233	0.221	-	5.2	20	56	0
trans-1,3-Dichloropropene	0.344	0.312	-	9.3	20	54	0
Ethyl methacrylate	0.229	0.175	-	23.6*	20	45	0
1,1,2-Trichloroethane	0.16	0.149*	-	6.9	20	56	0
Chlorodibromomethane	0.223	0.214	-	4	20	58	0
1,3-Dichloropropane	0.332	0.307	-	7.5	20	54	0
1,2-Dibromoethane	0.185	0.169*	-	8.6	20	55	0
2-Hexanone	0.117	0.099	-	15.4	20	50	0
Chlorobenzene	0.637	0.62	-	2.7	20	57	0
Ethylbenzene	1.092	1.069	-	2.1	20	58	0
1,1,1,2-Tetrachloroethane	0.239	0.211	-	11.7	20	53	0
p/m Xylene	0.437	0.426	-	2.5	20	57	0
o Xylene	0.428	0.405	-	5.4	20	55	0
Styrene	0.699	0.688	-	1.6	20	57	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	57	0
Bromoform	0.243	0.226	-	7	20	57	0
Isopropylbenzene	1.993	1.903	-	4.5	20	55	0
4-Bromofluorobenzene	0.947	0.916	-	3.3	20	55	0
Bromobenzene	0.487	0.46	-	5.5	20	55	0
n-Propylbenzene	2.283	2.344	-	-2.7	20	59	0
1,4-Dichlorobutane	0.7	0.656	-	6.3	20	55	0
1,1,2,2-Tetrachloroethane	0.404	0.397	-	1.7	20	57	0
4-Ethyltoluene	2.024	1.998	-	1.3	20	57	0
2-Chlorotoluene	1.64	1.746	-	-6.5	20	62	0
1,3,5-Trimethylbenzene	1.742	1.715	-	1.5	20	56	0
1,2,3-Trichloropropane	0.326	0.324	-	0.6	20	58	0
trans-1,4-Dichloro-2-buten	0.156	0.148	-	5.1	20	56	0
4-Chlorotoluene	1.477	1.542	-	-4.4	20	61	0
tert-Butylbenzene	1.409	1.38	-	2.1	20	56	0
1,2,4-Trimethylbenzene	1.693	1.668	-	1.5	20	56	0
sec-Butylbenzene	2.013	2.045	-	-1.6	20	58	0
p-Isopropyltoluene	1.754	1.735	-	1.1	20	56	0
1,3-Dichlorobenzene	0.958	0.931	-	2.8	20	57	0
1,4-Dichlorobenzene	0.956	0.96	-	-0.4	20	59	0
p-Diethylbenzene	1.065	0.998	-	6.3	20	55	0
n-Butylbenzene	1.429	1.503	-	-5.2	20	62	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : QUIMBY
 Lab File ID : VQ240408A01
 Sample No : WG1906246-2
 Channel :

Lab Number : L2418455
 Project Number : 045163
 Calibration Date : 04/08/24 03:25
 Init. Calib. Date(s) : 02/22/24 02/22/24
 Init. Calib. Times : 04:41 07:20

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichlorobenzene	0.904	0.867	-	4.1	20	55	0
1,2,4,5-Tetramethylbenzene	1.756	1.544	-	12.1	20	51	0
1,2-Dibromo-3-chloropropan	0.064	0.056	-	12.5	20	51	0
1,3,5-Trichlorobenzene	0.669	0.645	-	3.6	20	57	0
Hexachlorobutadiene	0.191	0.198	-	-3.7	20	62	0
1,2,4-Trichlorobenzene	0.613	0.542	-	11.6	20	53	0
Naphthalene	1.384	1.219	-	11.9	20	50	0
1,2,3-Trichlorobenzene	0.564	0.514	-	8.9	20	53	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : JACK2
 Lab File ID : J240409A01
 Sample No : WG1906385-2
 Channel :

Lab Number : L2418455
 Project Number : 045163
 Calibration Date : 04/09/24 03:37
 Init. Calib. Date(s) : 04/02/24 04/02/24
 Init. Calib. Times : 05:39 08:52

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	98	0
Dichlorodifluoromethane	0.428	0.545	-	-27.3*	20	119	0
Chloromethane	0.456	0.575	-	-26.1*	20	117	0
Vinyl chloride	0.575	0.673	-	-17	20	113	0
Bromomethane	0.3	0.257	-	14.3	20	97	0
Chloroethane	0.371	0.404	-	-8.9	20	103	0
Trichlorofluoromethane	0.51	0.597	-	-17.1	20	111	0
Ethyl ether	0.143	0.158	-	-10.5	20	114	0
1,1-Dichloroethene	0.318	0.362	-	-13.8	20	112	0
Carbon disulfide	0.993	1.19	-	-19.8	20	117	0
Freon-113	0.334	0.393	-	-17.7	20	119	0
Iodomethane	10	7.277	-	27.2*	20	79	0
Acrolein	0.04	0.046	-	-15	20	136	0
Methylene chloride	0.338	0.388	-	-14.8	20	116	0
Acetone	10	12.098	-	-21*	20	122	0
trans-1,2-Dichloroethene	0.341	0.399	-	-17	20	115	0
Methyl acetate	0.197	0.212	-	-7.6	20	116	0
Methyl tert-butyl ether	0.786	0.82	-	-4.3	20	109	0
tert-Butyl alcohol	0.026	0.03	-	-15.4	20	129	0
Diisopropyl ether	1.082	1.167	-	-7.9	20	114	0
1,1-Dichloroethane	0.7	0.836	-	-19.4	20	119	0
Halothane	0.26	0.295	-	-13.5	20	110	0
Acrylonitrile	0.094	0.106	-	-12.8	20	115	0
Ethyl tert-butyl ether	0.98	0.989	-	-0.9	20	115	0
Vinyl acetate	10	10.442	-	-4.4	20	126	0
cis-1,2-Dichloroethene	0.387	0.439	-	-13.4	20	115	0
2,2-Dichloropropane	0.546	0.662	-	-21.2*	20	121	0
Bromochloromethane	0.164	0.188	-	-14.6	20	115	0
Cyclohexane	0.652	0.793	-	-21.6*	20	118	0
Chloroform	0.628	0.707	-	-12.6	20	113	0
Ethyl acetate	0.256	0.279	-	-9	20	115	0
Carbon tetrachloride	10	10.741	-	-7.4	20	115	0
Tetrahydrofuran	0.096	0.112	-	-16.7	20	119	0
Dibromofluoromethane	0.278	0.291	-	-4.7	20	103	0
1,1,1-Trichloroethane	0.545	0.65	-	-19.3	20	118	0
2-Butanone	0.115	0.115	-	0	20	112	0
1,1-Dichloropropene	0.461	0.543	-	-17.8	20	116	0
Benzene	1.326	1.514	-	-14.2	20	113	0
tert-Amyl methyl ether	0.814	0.824	-	-1.2	20	113	0
1,2-Dichloroethane-d4	0.341	0.343	-	-0.6	20	101	0
1,2-Dichloroethane	0.453	0.526	-	-16.1	20	116	0
Methyl cyclohexane	0.63	0.64	-	-1.6	20	110	0
Trichloroethene	10	11.022	-	-10.2	20	111	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : JACK2
 Lab File ID : J240409A01
 Sample No : WG1906385-2
 Channel :

Lab Number : L2418455
 Project Number : 045163
 Calibration Date : 04/09/24 03:37
 Init. Calib. Date(s) : 04/02/24 04/02/24
 Init. Calib. Times : 05:39 08:52

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Dibromomethane	0.193	0.213	-	-10.4	20	112	0
1,2-Dichloropropane	0.349	0.38	-	-8.9	20	111	0
Bromodichloromethane	0.453	0.527	-	-16.3	20	115	0
1,4-Dioxane	0.00179	0.00236*	-	-31.8*	20	132	0
cis-1,3-Dichloropropene	10	10.505	-	-5.1	20	113	0
Chlorobenzene-d5	1	1	-	0	20	98	0
Toluene-d8	1.272	1.281	-	-0.7	20	98	0
Toluene	1.108	1.221	-	-10.2	20	114	0
4-Methyl-2-pentanone	0.119	0.12	-	-0.8	20	116	0
Tetrachloroethene	0.468	0.53	-	-13.2	20	115	0
trans-1,3-Dichloropropene	10	10.003	-	-0	20	113	0
Ethyl methacrylate	0.37	0.404	-	-9.2	20	115	0
1,1,2-Trichloroethane	0.297	0.313	-	-5.4	20	109	0
Chlorodibromomethane	0.385	0.395	-	-2.6	20	110	0
1,3-Dichloropropane	0.554	0.589	-	-6.3	20	109	0
1,2-Dibromoethane	0.317	0.336	-	-6	20	112	0
2-Hexanone	0.232	0.247	-	-6.5	20	117	0
Chlorobenzene	1.192	1.3	-	-9.1	20	115	0
Ethylbenzene	2.152	2.423	-	-12.6	20	115	0
1,1,1,2-Tetrachloroethane	0.412	0.415	-	-0.7	20	110	0
p/m Xylene	0.846	0.933	-	-10.3	20	114	0
o Xylene	0.811	0.892	-	-10	20	115	0
Styrene	1.378	1.477	-	-7.2	20	115	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	96	0
Bromoform	10	9.47	-	5.3	20	107	0
Isopropylbenzene	3.628	4.014	-	-10.6	20	115	0
4-Bromofluorobenzene	0.806	0.826	-	-2.5	20	99	0
Bromobenzene	0.863	0.923	-	-7	20	113	0
n-Propylbenzene	4.565	5.075	-	-11.2	20	115	0
1,4-Dichlorobutane	1.044	1.109	-	-6.2	20	119	0
1,1,2,2-Tetrachloroethane	0.752	0.779	-	-3.6	20	116	0
4-Ethyltoluene	3.717	4.107	-	-10.5	20	114	0
2-Chlorotoluene	3.037	3.368	-	-10.9	20	116	0
1,3,5-Trimethylbenzene	3.122	3.513	-	-12.5	20	116	0
1,2,3-Trichloropropane	0.594	0.628	-	-5.7	20	117	0
trans-1,4-Dichloro-2-buten	0.253	0.266	-	-5.1	20	118	0
4-Chlorotoluene	2.68	3.019	-	-12.6	20	118	0
tert-Butylbenzene	2.655	2.903	-	-9.3	20	112	0
1,2,4-Trimethylbenzene	3.064	3.415	-	-11.5	20	117	0
sec-Butylbenzene	4.045	4.491	-	-11	20	114	0
p-Isopropyltoluene	3.5	3.84	-	-9.7	20	114	0
1,3-Dichlorobenzene	1.781	1.932	-	-8.5	20	114	0
1,4-Dichlorobenzene	1.778	1.937	-	-8.9	20	114	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : GEI Consultants
 Project Name : 50 TUFTS STREET
 Instrument ID : JACK2
 Lab File ID : J240409A01
 Sample No : WG1906385-2
 Channel :

Lab Number : L2418455
 Project Number : 045163
 Calibration Date : 04/09/24 03:37
 Init. Calib. Date(s) : 04/02/24 04/02/24
 Init. Calib. Times : 05:39 08:52

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
p-Diethylbenzene	2.099	2.322	-	-10.6	20	116	0
n-Butylbenzene	3.225	3.595	-	-11.5	20	115	0
1,2-Dichlorobenzene	1.639	1.773	-	-8.2	20	116	0
1,2,4,5-Tetramethylbenzene	3.095	3.084	-	0.4	20	114	0
1,2-Dibromo-3-chloropropan	0.129	0.122	-	5.4	20	106	0
1,3,5-Trichlorobenzene	1.274	1.375	-	-7.9	20	114	0
Hexachlorobutadiene	0.547	0.582	-	-6.4	20	114	0
1,2,4-Trichlorobenzene	1.144	1.179	-	-3.1	20	117	0
Naphthalene	2.591	2.72	-	-5	20	114	0
1,2,3-Trichlorobenzene	0.993	1.056	-	-6.3	20	116	0

* Value outside of QC limits.





ANALYTICAL REPORT

Lab Number:	L2429387
Client:	GEI Consultants 400 Unicorn Park Drive Woburn, MA 01801
ATTN:	Chris Coner
Phone:	(781) 721-4000
Project Name:	TUFTS ST.
Project Number:	045163
Report Date:	06/11/24

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Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0825), DoD (L2474), FL (E87814), IL (200081), IN (C-MA-04), KY (KY98046), LA (85084), ME (MA00030), MD (350), MI (9110), MN (025-999-495), NJ (MA015), NY (11627), NC (685), OR (MA-0262), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #525-23-107-88708A1), USFWS (Permit #A24920).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: TUFTS ST.
Project Number: 045163

Lab Number: L2429387
Report Date: 06/11/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2429387-01	045163-97FRAN-B	AIR	SOMERVILLE, MA	05/24/24 10:36	05/28/24
L2429387-02	045163-97FRAN-1	AIR	SOMERVILLE, MA	05/24/24 10:42	05/28/24
L2429387-03	045163-97FRAN-2	AIR	SOMERVILLE, MA	05/24/24 10:49	05/28/24
L2429387-04	045163-97FRAN-SS1	SOIL_VAPOR	SOMERVILLE, MA	05/24/24 13:47	05/28/24
L2429387-05	045163-97FRAN-SS2	SOIL_VAPOR	SOMERVILLE, MA	05/24/24 13:46	05/28/24

Project Name: TUFTS ST.

Lab Number: L2429387

Project Number: 045163

Report Date: 06/11/24

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	NO
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO
For any questions answered "No", please refer to the case narrative section on the following page(s).		

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: TUFTS ST.
Project Number: 045163

Lab Number: L2429387
Report Date: 06/11/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: TUFTS ST.
Project Number: 045163

Lab Number: L2429387
Report Date: 06/11/24

Case Narrative (continued)

MCP Related Narratives

Canisters were released from the laboratory on April 1, 2024. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to questions E b/I:

All samples were analyzed for a subset of the MCP compounds per the Chain of Custody.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 06/11/24

QC OUTLIER SUMMARY REPORT

Project Name: TUFTS ST.**Lab Number:** L2429387**Project Number:** 045163**Report Date:** 06/11/24

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
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There are no QC Outliers associated with this report.

AIR

Project Name: TUFTS ST.**Project Number:** 045163**Lab Number:** L2429387**Report Date:** 06/11/24**SAMPLE RESULTS**

Lab ID: L2429387-01
 Client ID: 045163-97FRAN-B
 Sample Location: SOMERVILLE, MA

Date Collected: 05/24/24 10:36
 Date Received: 05/28/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 06/09/24 18:24
 Analyst: JMB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	0.023	0.020	--	0.125	0.109	--		1
Trichloroethene	0.091	0.020	--	0.489	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	0.254	0.020	--	1.72	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	98		60-140



Project Name: TUFTS ST.**Lab Number:** L2429387**Project Number:** 045163**Report Date:** 06/11/24**SAMPLE RESULTS**

Lab ID: L2429387-02
 Client ID: 045163-97FRAN-1
 Sample Location: SOMERVILLE, MA

Date Collected: 05/24/24 10:42
 Date Received: 05/28/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 06/09/24 19:01
 Analyst: JMB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	0.031	0.020	--	0.167	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	0.077	0.020	--	0.522	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	98		60-140



Project Name: TUFTS ST.**Project Number:** 045163**Lab Number:** L2429387**Report Date:** 06/11/24**SAMPLE RESULTS**

Lab ID: L2429387-03
 Client ID: 045163-97FRAN-2
 Sample Location: SOMERVILLE, MA

Date Collected: 05/24/24 10:49
 Date Received: 05/28/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 06/09/24 19:38
 Analyst: JMB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	0.028	0.020	--	0.150	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	95		60-140



Project Name: TUFTS ST.**Lab Number:** L2429387**Project Number:** 045163**Report Date:** 06/11/24**SAMPLE RESULTS**

Lab ID: L2429387-04
 Client ID: 045163-97FRAN-SS1
 Sample Location: SOMERVILLE, MA

Date Collected: 05/24/24 13:47
 Date Received: 05/28/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 06/10/24 21:29
 Analyst: BJB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	0.193	0.020	--	1.31	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	100		60-140
chlorobenzene-d5	102		60-140



Project Name: TUFTS ST.**Project Number:** 045163**Lab Number:** L2429387**Report Date:** 06/11/24**SAMPLE RESULTS**

Lab ID: L2429387-05
 Client ID: 045163-97FRAN-SS2
 Sample Location: SOMERVILLE, MA

Date Collected: 05/24/24 13:46
 Date Received: 05/28/24
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 101,TO-15-SIM
 Analytical Date: 06/10/24 22:06
 Analyst: BJB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	0.025	0.020	--	0.136	0.109	--		1
Trichloroethene	0.028	0.020	--	0.150	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	0.909	0.020	--	6.16	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	102		60-140



Project Name: TUFTS ST.

Lab Number: L2429387

Project Number: 045163

Report Date: 06/11/24

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM

Analytical Date: 06/09/24 14:30

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03 Batch: WG1931796-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1



Project Name: TUFTS ST.

Lab Number: L2429387

Project Number: 045163

Report Date: 06/11/24

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM

Analytical Date: 06/10/24 15:31

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 04-05 Batch: WG1932234-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1



Lab Control Sample Analysis **Batch Quality Control**

Project Name: TUFTS ST.

Project Number: 045163

Lab Number: L2429387

Report Date: 06/11/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 Batch: WG1931796-3								
Vinyl chloride	93		-		70-130	-		
1,1-Dichloroethene	92		-		70-130	-		
trans-1,2-Dichloroethene	87		-		70-130	-		
1,1-Dichloroethane	87		-		70-130	-		
cis-1,2-Dichloroethene	90		-		70-130	-		
1,1,1-Trichloroethane	105		-		70-130	-		
Trichloroethene	99		-		70-130	-		
1,1,2-Trichloroethane	99		-		70-130	-		
Tetrachloroethene	77		-		70-130	-		
1,1,2,2-Tetrachloroethane	89		-		70-130	-		

Lab Control Sample Analysis Batch Quality Control

Project Name: TUFTS ST.

Project Number: 045163

Lab Number: L2429387

Report Date: 06/11/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 04-05 Batch: WG1932234-3								
Vinyl chloride	93		-		70-130	-		
1,1-Dichloroethene	95		-		70-130	-		
trans-1,2-Dichloroethene	91		-		70-130	-		
1,1-Dichloroethane	92		-		70-130	-		
cis-1,2-Dichloroethene	94		-		70-130	-		
1,1,1-Trichloroethane	101		-		70-130	-		
Trichloroethene	99		-		70-130	-		
1,1,2-Trichloroethane	103		-		70-130	-		
Tetrachloroethene	85		-		70-130	-		
1,1,2,2-Tetrachloroethane	100		-		70-130	-		

Project Name: TUFTS ST.

Project Number: 045163

Serial_No:06112415:46
Lab Number: L2429387

Report Date: 06/11/24

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2429387-01	045163-97FRAN-B	01788	Flow 4	04/01/24	459066		-	-	-	Pass	3.1	3.3	6
L2429387-01	045163-97FRAN-B	692	6.0L Can	04/01/24	459066	L2416785-03	Pass	-29.4	-6.3	-	-	-	-
L2429387-02	045163-97FRAN-1	0967	Flow 4	04/01/24	459066		-	-	-	Pass	3.0	3.1	3
L2429387-02	045163-97FRAN-1	645	6.0L Can	04/01/24	459066	L2416785-03	Pass	-29.3	-2.7	-	-	-	-
L2429387-03	045163-97FRAN-2	0132	Flow 4	04/01/24	459066		-	-	-	Pass	3.0	3.3	10
L2429387-03	045163-97FRAN-2	1870	6.0L Can	04/01/24	459066	L2416785-03	Pass	-29.4	-6.7	-	-	-	-
L2429387-04	045163-97FRAN-SS1	01707	Flow 2	04/01/24	459066		-	-	-	Pass	36.1	38.0	5
L2429387-04	045163-97FRAN-SS1	2013	2.7L Can	04/01/24	459066	L2416785-01	Pass	-29.3	-4.9	-	-	-	-
L2429387-05	045163-97FRAN-SS2	01812	Flow 2	04/01/24	459066		-	-	-	Pass	36.1	37.7	4
L2429387-05	045163-97FRAN-SS2	3200	2.7L Can	04/01/24	459066	L2416785-01	Pass	-29.3	-6.2	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2416785
Report Date: 06/11/24

Air Canister Certification Results

Lab ID: L2416785-01
Client ID: CAN 1722 SHELF 14
Sample Location:

Date Collected: 03/27/24 18:00
Date Received: 03/28/24
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 03/28/24 15:57
Analyst: JFI

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2416785
Report Date: 06/11/24

Air Canister Certification Results

Lab ID: L2416785-01
Client ID: CAN 1722 SHELF 14
Sample Location:

Date Collected: 03/27/24 18:00
Date Received: 03/28/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2416785
Report Date: 06/11/24

Air Canister Certification Results

Lab ID: L2416785-01
Client ID: CAN 1722 SHELF 14
Sample Location:

Date Collected: 03/27/24 18:00
Date Received: 03/28/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2416785
Report Date: 06/11/24

Air Canister Certification Results

Lab ID: L2416785-01
Client ID: CAN 1722 SHELF 14
Sample Location:

Date Collected: 03/27/24 18:00
Date Received: 03/28/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L2416785**Project Number:** CANISTER QC BAT**Report Date:** 06/11/24**Air Canister Certification Results**

Lab ID: L2416785-01

Date Collected: 03/27/24 18:00

Client ID: CAN 1722 SHELF 14

Date Received: 03/28/24

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				
No Tentatively Identified Compounds				

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	99		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	97		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2416785
Report Date: 06/11/24

Air Canister Certification Results

Lab ID: L2416785-01
Client ID: CAN 1722 SHELF 14
Sample Location:

Date Collected: 03/27/24 18:00
Date Received: 03/28/24
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 03/28/24 15:57
Analyst: JFI

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acrolein	ND	0.050	--	ND	0.115	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2416785
Report Date: 06/11/24

Air Canister Certification Results

Lab ID: L2416785-01
Client ID: CAN 1722 SHELF 14
Sample Location:

Date Collected: 03/27/24 18:00
Date Received: 03/28/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.100	--	ND	0.518	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L2416785**Project Number:** CANISTER QC BAT**Report Date:** 06/11/24**Air Canister Certification Results**

Lab ID: L2416785-01

Date Collected: 03/27/24 18:00

Client ID: CAN 1722 SHELF 14

Date Received: 03/28/24

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	97		60-140



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2416785
Report Date: 06/11/24

Air Canister Certification Results

Lab ID: L2416785-03
Client ID: CAN 2888 SHELF 36
Sample Location:

Date Collected: 03/27/24 18:00
Date Received: 03/28/24
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 03/28/24 17:32
Analyst: JFI

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2416785
Report Date: 06/11/24

Air Canister Certification Results

Lab ID: L2416785-03
Client ID: CAN 2888 SHELF 36
Sample Location:

Date Collected: 03/27/24 18:00
Date Received: 03/28/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2416785
Report Date: 06/11/24

Air Canister Certification Results

Lab ID: L2416785-03
Client ID: CAN 2888 SHELF 36
Sample Location:

Date Collected: 03/27/24 18:00
Date Received: 03/28/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2416785
Report Date: 06/11/24

Air Canister Certification Results

Lab ID: L2416785-03
Client ID: CAN 2888 SHELF 36
Sample Location:

Date Collected: 03/27/24 18:00
Date Received: 03/28/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L2416785**Project Number:** CANISTER QC BAT**Report Date:** 06/11/24**Air Canister Certification Results**

Lab ID: L2416785-03

Date Collected: 03/27/24 18:00

Client ID: CAN 2888 SHELF 36

Date Received: 03/28/24

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				
No Tentatively Identified Compounds				

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	99		60-140
Bromochloromethane	101		60-140
chlorobenzene-d5	97		60-140



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2416785
Report Date: 06/11/24

Air Canister Certification Results

Lab ID: L2416785-03
Client ID: CAN 2888 SHELF 36
Sample Location:

Date Collected: 03/27/24 18:00
Date Received: 03/28/24
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 03/28/24 17:32
Analyst: JFI

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acrolein	ND	0.050	--	ND	0.115	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2416785
Report Date: 06/11/24

Air Canister Certification Results

Lab ID: L2416785-03
Client ID: CAN 2888 SHELF 36
Sample Location:

Date Collected: 03/27/24 18:00
Date Received: 03/28/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.100	--	ND	0.518	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L2416785**Project Number:** CANISTER QC BAT**Report Date:** 06/11/24**Air Canister Certification Results**

Lab ID: L2416785-03

Date Collected: 03/27/24 18:00

Client ID: CAN 2888 SHELF 36

Date Received: 03/28/24

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	97		60-140



Project Name: TUFTS ST.
Project Number: 045163

Serial_No:06112415:46
Lab Number: L2429387
Report Date: 06/11/24

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
NA	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2429387-01A	Canister - 6L (Batch Certified)	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L2429387-02A	Canister - 6L (Batch Certified)	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L2429387-03A	Canister - 6L (Batch Certified)	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L2429387-04A	Canister - 2.7L (Batch Certified)	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L2429387-05A	Canister - 2.7L (Batch Certified)	NA	NA			Y	Absent		MCP-TO15-SIM(30)

Project Name: TUFTS ST.**Lab Number:** L2429387**Project Number:** 045163**Report Date:** 06/11/24

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report

Project Name: TUFTS ST.
Project Number: 045163

Lab Number: L2429387
Report Date: 06/11/24

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report



Project Name: TUFTS ST.**Lab Number:** L2429387**Project Number:** 045163**Report Date:** 06/11/24**Data Qualifiers**

- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: TUFTS ST.
Project Number: 045163

Lab Number: L2429387
Report Date: 06/11/24

REFERENCES

- 101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624.1: m/p-xylene, o-xylene, Naphthalene

EPA 625.1: alpha-Terpineol

EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270E: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Nonpotable Water: **EPA RSK-175 Dissolved Gases**

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables).

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522, EPA 537.1.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE 1 OF 1

Date Rec'd in Lab: 5/28/24

ALPHA Job #: 22429387



CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Project Information

Project Name: Tufts St.
Project Location: Somerville, MA
Project #: 045163
Project Manager: Chris Conner
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Res / Comm

ANALYSIS

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All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION						Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM	APH	Fixed Gases	Sulfides & Mercaptans	Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum												
29387-01	045163-97Fan-B	5/24/24	10:36	10:36	-29.93	-6.86	IA	DJM	GL	692	01788	X						See attached list of analytes
02	045163-97Fan-1		10:42	10:42	-29.60	-8.26	IA	DJM	GL	645	0967	X						
03	045163-97Fan-2		10:49	10:49	-29.98	-6.85	IA	DJM	GL	1870	0132	X						
04	045163-97Fan-SS1		12:47	13:47	-29.92	-5.43	SV	DJM	2.7L	2013	01812	X						
05	045163-97Fan-SS2		12:46	13:46	-29.74	-6.62	SV	DJM	2.7L	3200	01707	X						

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Relinquished By:

Date/Time

Received By:

Date/Time:

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Tufts Street IA/SV Analyte List

- Vinyl chloride
- 1,1-Dichloroethene
- trans-1,2-Dichloroethane
- 1,1-Dichloroethane
- cis-1,2-Dichloroethene
- 1,1,1-Trichloroethane
- Trichloroethene
- 1,1,2-Trichloroethane
- Tetrachloroethene
- 1,1,2,2-Tetrachloroethane

Appendix E Pre-Sampling Checklists and Air Sampling Checklist



AMBIENT AIR SAMPLING CHECKLIST

Sampling Location:
31 Tufts St (3 Bedroom Unit)

Sample ID: 045163-31TUFT-IA1

Date: 1/30/2024

Sampling personnel: J. Farr

Summa Canister ID: 1814

Flow Regulator ID: 02151

Sample Type / Analysis Method: TO15/Summa

Sampling Start Time: 12:02 (1/30/2024)

Sampling Finish Time: 12:02 (1/31/2024)

1/30/2024

1/31/2024

1/31/2024

During Sampling	
Time	Vacuum
12:21	-28.56
10:08	-9.62
11:00	-8.87

Did Summa canister go to ambient pressure? No

Vacuum pressure reported by Laboratory: ---

Pressure gauge reading (Pre-opening): Flow Controller: -28.81 in. Hg (0.00 before opening)

Pressure gauge reading (After sample collected): Flow Controller: -7.90 in. Hg (at end)

Environmental Conditions (Outside):

Before Sampling

After Sampling

Temperature (°F): ~30°F
Barometric Pressure (in. Hg): 30.26
Prevailing Wind Direction: NE (7mph)
General Weather Conditions: Cloudy

~36°F
30.10
W-SW (5mph)
Cloudy

Environmental Conditions (At Sample Location):

Before Sampling

After Sampling

Temperature (°F): ~72°F
Barometric Pressure (in. Hg): 30.25

~72°F
30.10

PID readings at sample location (ppm): 0.1

Photographs taken before sampling? Yes **If Yes, what time:** **Taken by:**

Photographs taken after sampling? Yes **If Yes, what time:** **Taken by:**

Was the building aired out prior to sample collection? No **If yes, how long?**

Windows open? No **Ventilation fans?** No

Was there significant precipitation within 12 hours of (or during) the sampling event? No

Were any of the residents home during sampling? No **If yes, provide detail:**

Did any of the occupants NOT follow instruction for residents? No **If yes, describe below:**

Air intake at ~5' (on counter).

Basement Ceiling Height (to joists): Front ~10' ; Back _____.

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process. Also, note the usage of the basement (storage only, laundry, etc.):



AMBIENT AIR SAMPLING CHECKLIST

Sampling Location:
31 Tufts St (Unit 101)

Sample ID: 045163-31TUFT-IA2

Date: 1/30/2024

Sampling personnel: J. Farr

Summa Canister ID: 3948

Flow Regulator ID: 02083

Sample Type / Analysis Method: TO15/Summa

Sampling Start Time: 11:23 (1/30/2024)

Sampling Finish Time: 10:06 (1/31/2024)

1/30/2024

1/31/2024

During Sampling	
Time	Vacuum
12:17	-29.44
10:05	-2.99

Did Summa canister go to ambient pressure? No

Vacuum pressure reported by Laboratory: ---

Pressure gauge reading (Pre-opening): Flow Controller: -30.59 in. Hg (0.00 before opening)

Pressure gauge reading (After sample collected): Flow Controller: -2.96 in. Hg (at end)

Environmental Conditions (Outside):

Before Sampling

After Sampling

Temperature (°F): ~30°F
Barometric Pressure (in. Hg): 30.26
Prevailing Wind Direction: NE (7mph)
General Weather Conditions: Cloudy

~36°F
30.10
W-SW (5mph)
Cloudy

Environmental Conditions (At Sample Location):

Before Sampling

After Sampling

Temperature (°F): ~68°F
Barometric Pressure (in. Hg): 30.26

~69°F
30.13

PID readings at sample location (ppm): 0.1

Photographs taken before sampling? Yes **If Yes, what time:** **Taken by:**

Photographs taken after sampling? Yes **If Yes, what time:** **Taken by:**

Was the building aired out prior to sample collection? No **If yes, how long?**

Windows open? No **Ventilation fans?** No

Was there significant precipitation within 12 hours of (or during) the sampling event? No

Were any of the residents home during sampling? No **If yes, provide detail:**

Did any of the occupants NOT follow instruction for residents? No **If yes, describe below:**

Air intake at ~4'.

Basement Ceiling Height (to joists): Front ~10' ; Back _____.

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process. Also, note the usage of the basement (storage only, laundry, etc.):

- paint cans in stairwell nearby, actively cleaning the building and mopping floors



AMBIENT AIR SAMPLING CHECKLIST

Sampling Location:
31 Tufts St (Utility Closet)

Sample ID: 045163-31TUFT-IA3

Date: 1/30/2024

Sampling personnel: J. Farr

Summa Canister ID: 3326

Flow Regulator ID: 0188

Sample Type / Analysis Method: TO15/Summa

Sampling Start Time: 10:55 (1/30/2024)

Sampling Finish Time: 10:55 (1/31/2024)

1/30/2024

1/31/2024

During Sampling	
Time	Vacuum
12:16	-29.23
10:04	-9.81

Did Summa canister go to ambient pressure? No

Vacuum pressure reported by Laboratory: ---

Pressure gauge reading (Pre-opening): Flow Controller: -28.81 in. Hg (-11.67 before opening, see note below)

Pressure gauge reading (After sample collected): Flow Controller: -8.93 in. Hg (at end)

Environmental Conditions (Outside):

Before Sampling

After Sampling

Temperature (°F): ~30°F
Barometric Pressure (in. Hg): 30.26
Prevailing Wind Direction: NE (7mph)
General Weather Conditions: Cloudy

~36°F
30.10
W-SW (5mph)
Cloudy

Environmental Conditions (At Sample Location):

Before Sampling

After Sampling

Temperature (°F): ~72°F
Barometric Pressure (in. Hg): 30.26

~68°F
30.13

PID readings at sample location (ppm): 0.1

Photographs taken before sampling? Yes **If Yes, what time:** **Taken by:**

Photographs taken after sampling? Yes **If Yes, what time:** **Taken by:**

Was the building aired out prior to sample collection? No **If yes, how long?**

Windows open? No **Ventilation fans?** No

Was there significant precipitation within 12 hours of (or during) the sampling event? No

Were any of the residents home during sampling? No **If yes, provide detail:**

Did any of the occupants NOT follow instruction for residents? Yes **If yes, describe below:**

At 7am contractors placed the can on floor; at 10:15am this was corrected and can was placed back on buckets

Air intake at ~4'10".

Basement Ceiling Height (to joists): Front ~10' ; Back _____.

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process. Also, note the usage of the basement (storage only, laundry, etc.):

- Regulator would not zero when attached to the can and was reading -11.67 in hg.
- Joint compound and stocco patch materials present



SUB-SLAB SAMPLING CHECKLIST

Sampling Location:
31 Tufts St (Utility Closet)

Sample ID: 045163-31TUFT-SV1

Date: 1/31/2024

Sampling personnel: J. Farr

Summa Canister ID: 118

Flow Regulator ID: 01928

Sample Type / Analysis Method: SUMMA/TO-15

Sampling Start Time: 13:05

Sampling Finish Time: 14:05

During Sampling	
Time	Vacuum
13:20	-24.22
13:31	-19.76
13:50	-11.57

Did Summa Canister go to ambient pressure? No

Pressure gauge reading (Pre-opening): Flow Controller: 0.00 --> -30.27 in.Hg

Pressure gauge reading (After sample collected): Flow Controller: -5.35 --> 0.00 in.Hg

Environmental Conditions (Outside):

Before Sampling

After Sampling

Temperature: 36°F
Barometric Pressure: 30.10 inHg
Prevailing Wind Direction: 5mph W-SW
General Weather Conditions: Cloudy

36°F
30.10 inHg
5mph W-SW
Cloudy

Photographs taken before sampling? Yes / No **If Yes, what time:** **Taken by:**

Vacuum prior to sampling (in. WC): -0.01

Ambient air concentration (ppm): 0.2

Soil gas concentration prior to sampling (ppm): 0.2

Vapor point purged for ~10 min with a MiniRAE 3000 (500-600 cc/min) prior to sampling.

Comments:

- Sample point installed on 10/17/23
- floor sink in utility room had an odor of cleaning supplies
- Joint compound and Ready Mix Stocco patch materials in utility closet



SUB-SLAB SAMPLING CHECKLIST

Sampling Location:
31 Tufts St (stairwell 2)

Sample ID: 045163-31TUFT-SV2

Date: 1/31/2024

Sampling personnel: J. Farr

Summa Canister ID: 3898

Flow Regulator ID: 01039

Sample Type / Analysis Method: SUMMA/TO-15

Sampling Start Time: 13:00

Sampling Finish Time: 14:00

During Sampling	
Time	Vacuum
13:15	-23.52
13:27	-18.03
13:42	-10.76

Did Summa Canister go to ambient pressure? No

Pressure gauge reading (Pre-opening): Flow Controller: 0.00 --> -30.32 in.Hg

Pressure gauge reading (After sample collected): Flow Controller: -2.24 --> 0.00 in.Hg

Environmental Conditions (Outside):

Before Sampling

After Sampling

Temperature: 36°F
Barometric Pressure: 30.10 in. Hg
Prevailing Wind Direction: 5mph W-SW
General Weather Conditions: Cloudy

36°F
30.10 in. Hg
5mph W-SW
Cloudy

Photographs taken before sampling? Yes / No **If Yes, what time:** **Taken by:**

Vacuum prior to sampling (in. WC): -0.02

Ambient air concentration (ppm): 0.3

Soil gas concentration prior to sampling (ppm): 0.3

Vapor point purged for ~8 min with a MiniRAE 3000 (500-600 cc/min) prior to sampling.

Comments:

- Sample point installed on 10/27/23
- paint cans, caulking, and grout present in stairwell during sampling
- stairwell was being cleaned during sampling - using multipurpose cleaner products



AMBIENT AIR SAMPLING CHECKLIST

Sampling Location:
97 Franklin

Sample ID: 045163-97Fran-B

Date: 5/23/2024

Sampling personnel: D. Miller

Summa Canister ID: 692

Flow Regulator ID: 01788

Sample Type / Analysis Method: TO15/Summa

Sampling Start Time: 10:36 (5/23/2024)

Sampling Finish Time: 10:36 (5/24/2024)

5/23/2024

5/24/2024

5/24/2024

During Sampling

Time	Vacuum
10:36	-29.93
10:13	-7.27
10:36	-6.86

Did Summa canister go to ambient pressure? Yes / No

Vacuum pressure reported by Laboratory: --- (Initial = -29.4 in. Hg)

Pressure gauge reading (Pre-opening): Flow Controller: 0.00 in.Hg (-29.93 upon opening)

Pressure gauge reading (After sample collected): Flow Controller: -6.86 in. Hg

Environmental Conditions (Outside):

Before Sampling

After Sampling

Temperature (°F): ~80
Barometric Pressure (in. Hg): 29.82
Prevailing Wind Direction: 8 mph out of SW
General Weather Conditions: Cloudy

~75
29.81
8 mph out of W
Sunny

Environmental Conditions (At Sample Location):

Before Sampling

After Sampling

Temperature (°F): ~65
Barometric Pressure (in. Hg): 29.82

~65
29.78

PID readings at sample location (ppb): ~1.3 ppmV ambient in basement

Photographs taken before sampling? Yes / No If Yes, what time: 10:36 Taken by: DJM

Photographs taken after sampling? Yes / No If Yes, what time: 10:36 Taken by: DJM

Was the building aired out prior to sample collection? Yes / No If yes, how long?

Windows open? Yes / No **Ventilation fans?** Yes / No

Was there significant precipitation within 12 hours of (or during) the sampling event? Yes / No

Were any of the residents home during sampling? Yes / No If yes, provide detail: Owner and a couple of adults come and go

Did any of the occupants NOT follow instruction for residents? Yes / No If yes, describe below:

Air intake at ~5'.

Basement Ceiling Height (to joists): Front ~7' ; Back ~7'.

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process. Also, note the usage of the basement (storage only, laundry, etc.):

-Basement is used for laundry, storage (including paint cans), and has rug on concrete slab



AMBIENT AIR SAMPLING CHECKLIST

Sampling Location:
97 Franklin

Sample ID: 045163-97Fran-1

Date: 5/23/2024

Sampling personnel: D. Miller

Summa Canister ID: 645

Flow Regulator ID: 0967

Sample Type / Analysis Method: TO15/Summa

Sampling Start Time: 10:42 (5/23/2024)

Sampling Finish Time: 10:42 (5/24/2024)

5/23/2024

5/24/2024

5/24/2024

During Sampling

Time	Vacuum
10:42	-29.60
10:10	-8.73
10:42	-8.26

Did Summa canister go to ambient pressure? Yes / No ☒

Vacuum pressure reported by Laboratory: --- (Initial = -29.3 in. Hg)

Pressure gauge reading (Pre-opening): Flow Controller: 0.00 in.Hg (-29.60 upon opening)

Pressure gauge reading (After sample collected): Flow Controller: -8.26 in. Hg

Environmental Conditions (Outside):

Before Sampling

After Sampling

Temperature (°F): ~80
Barometric Pressure (in. Hg): 29.82
Prevailing Wind Direction: 8 mph out of SW
General Weather Conditions: Cloudy

~75
29.81
8 mph out of W
Sunny

Environmental Conditions (At Sample Location):

Before Sampling

After Sampling

Temperature (°F): ~65
Barometric Pressure (in. Hg): 29.82

~65
29.78

PID readings at sample location (ppb): ~0.5 ppmV ambient

Photographs taken before sampling? Yes / No ☒ If Yes, what time: 10:42 Taken by: DJM

Photographs taken after sampling? Yes / No ☒ If Yes, what time: 10:42 Taken by: DJM

Was the building aired out prior to sample collection? Yes / No ☒ If yes, how long?

Windows open? Yes / No ☒ **Ventilation fans?** Yes / No ☒

Was there significant precipitation within 12 hours of (or during) the sampling event? Yes / No ☒

Were any of the residents home during sampling? Yes / No ☒ If yes, provide detail: Owner and a couple of adults come and go

Did any of the occupants NOT follow instruction for residents? Yes / No ☒ If yes, describe below:

Air intake at ~5'.

Basement Ceiling Height (to joists): Front ~7' ; Back ~7'.

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process. Also, note the usage of the basement (storage only, laundry, etc.):

-sample taken from first floor, in dining room. Owner noted that a fan is used occasionally in the kitchen and living room.

-owner was cooking when taking ambient PID readings



AMBIENT AIR SAMPLING CHECKLIST

Sampling Location:
97 Franklin

Sample ID: 045163-97Fran-2

Date: 5/23/2024

Sampling personnel: D. Miller

Summa Canister ID: 1870

Flow Regulator ID: 0132

Sample Type / Analysis Method: TO15/Summa

Sampling Start Time: 10:49 (5/23/2024)

Sampling Finish Time: 10:49 (5/24/2024)

5/23/2024

5/24/2024

5/24/2024

During Sampling

Time	Vacuum
10:49	-29.98
10:11	-7.40
10:49	-6.85

Did Summa canister go to ambient pressure? Yes / No ☒

Vacuum pressure reported by Laboratory: --- (Initial = -29.4 in. Hg)

Pressure gauge reading (Pre-opening): Flow Controller: 0.00 in.Hg (-29.98 upon opening)

Pressure gauge reading (After sample collected): Flow Controller: -6.85 in. Hg

Environmental Conditions (Outside):

Before Sampling

After Sampling

Temperature (°F): ~80
Barometric Pressure (in. Hg): 29.82
Prevailing Wind Direction: 8 mph out of SW
General Weather Conditions: Cloudy

~75
29.81
8 mph out of W
Sunny

Environmental Conditions (At Sample Location):

Before Sampling

After Sampling

Temperature (°F): ~65
Barometric Pressure (in. Hg): 29.82

~65
29.78

PID readings at sample location (ppb): 0.0 ppmV ambient

Photographs taken before sampling? Yes / No ☒ If Yes, what time: 10:49 Taken by: DJM

Photographs taken after sampling? Yes / No ☒ If Yes, what time: 10:49 Taken by: DJM

Was the building aired out prior to sample collection? Yes / No ☒ If yes, how long?

Windows open? Yes / No ☒ **Ventilation fans?** Yes / No ☒

Was there significant precipitation within 12 hours of (or during) the sampling event? Yes / No ☒

Were any of the residents home during sampling? Yes / No ☒ If yes, provide detail: Owner and a couple of adults come and go

Did any of the occupants NOT follow instruction for residents? Yes / No ☒ If yes, describe below:

Air intake at ~5'.

Basement Ceiling Height (to joists): Front ~7' ; Back ~7'.

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process. Also, note the usage of the basement (storage only, laundry, etc.):

-sample taken from second floor, in hallway at top of stairs

-one room was under renovation during sampling (redoing flooring, painting) - door was kept closed during sampling



SUB-SLAB SAMPLING CHECKLIST

Sampling Location:
97 Franklin

Sample ID: 045163-97Frank-SS1

Date: 5/24/2024

Sampling personnel: D. Miller

Summa Canister ID: 2013

Flow Regulator ID: 01812

Sample Type / Analysis Method: SUMMA/TO-15

Sampling Start Time: 12:47

Sampling Finish Time: 13:47

During Sampling	
Time	Vacuum
12:47	-29.56
13:04	-23.18
13:31	-12.07
13:47	-5.43

Did Summa Canister go to ambient pressure? Yes / No ☒

Pressure gauge reading (Pre-opening): Flow Controller: 0.00 in.Hg (-29.56 upon opening)

Pressure gauge reading (After sample collected): Flow Controller: -5.43 in.Hg

Environmental Conditions (Outside):

Before Sampling

After Sampling

Temperature: ~80 °F
Barometric Pressure: 29.75 in Hg
Prevailing Wind Direction: 10 mph out of W
General Weather Conditions: Sunny

~82 °F
29.75 in Hg
10 mph out of W
Sunny

Photographs taken before sampling? Yes ☒ No ☐ If Yes, what time: 12:47 Taken by: DJM

Vacuum prior to sampling (in. WC): 0.000

Ambient air concentration (ppb): 0.8 to 1.3 ppmV

Soil gas concentration prior to sampling (ppm): 1.3 to 1.6 ppmv

Vapor point purged for ~5 min with a MiniRAE (500-600 cc/min) prior to sampling.

Comments:

- cleaned dirt out sub-slab sample point with metal pin flag prior to collecting sample.
- sample point located by tool area/bulkhead of basement



SUB-SLAB SAMPLING CHECKLIST

Sampling Location:
97 Franklin

Sample ID: 045163-97Frank-SS2

Date: 5/24/2024

Sampling personnel: D. Miller

Summa Canister ID: 3200

Flow Regulator ID: 01707

Sample Type / Analysis Method: SUMMA/TO-15

Sampling Start Time: 12:46

Sampling Finish Time: 13:46

During Sampling	
Time	Vacuum
12:46	-29.74
13:03	-23.31
13:30	-12.76
13:46	-6.62

Did Summa Canister go to ambient pressure? Yes / No ☒

Pressure gauge reading (Pre-opening): Flow Controller: 0.00 in.Hg (-29.74 upon opening)

Pressure gauge reading (After sample collected): Flow Controller: -6.62 in.Hg

Environmental Conditions (Outside):

Before Sampling

After Sampling

Temperature: ~80 °F
Barometric Pressure: 29.75 in Hg
Prevailing Wind Direction: 10 mph out of W
General Weather Conditions: Sunny

~82 °F
29.75 in Hg
10 mph out of W
Sunny

Photographs taken before sampling? Yes ☒ No ☐ If Yes, what time: 12:46 Taken by: DJM

Vacuum prior to sampling (in. WC): 0.000

Ambient air concentration (ppb): 0.8 to 1.3 ppmV

Soil gas concentration prior to sampling (ppm): 1.1 to 1.2 ppmv

Vapor point purged for ~5 min with a MiniRAE (500-600 cc/min) prior to sampling.

Comments:

- cleaned dirt out sub-slab sample point with metal pin flag prior to collecting sample.
- sample point located by laundry; street side of basement



AMBIENT AIR SAMPLING CHECKLIST

Sampling Location:
103 Washington

Sample ID: 045163-103Wash-B1

Date: 3/4/2024

Sampling personnel: D. Miller, N. Troccoli

Summa Canister ID: 3068

Flow Regulator ID: 01006

Sample Type / Analysis Method: TO15/Summa

Sampling Start Time: 09:56 (3/4/2024)

Sampling Finish Time: 09:56 (3/5/2024)

3/4/2024

3/4/2024

3/5/2024

3/5/2024

During Sampling

Time	Vacuum
9:56	-30.74
10:11	-30.54
9:38	-8.17
9:56	-7.87

Did Summa canister go to ambient pressure? Yes / No

Vacuum pressure reported by Laboratory: --- (Initial = -29.5 in. Hg)

Pressure gauge reading (Pre-opening): Flow Controller: 0.00 in.Hg (-30.74 upon opening)

Pressure gauge reading (After sample collected): Flow Controller: -7.87 in. Hg

Environmental Conditions (Outside):

Before Sampling

After Sampling

Temperature (°F): ~52
Barometric Pressure (in. Hg): 30.44
Prevailing Wind Direction: 5 mph out of E
General Weather Conditions: Partly Cloudy

~44
30.31
5 mph out of E
Cloudy, light mist

Environmental Conditions (At Sample Location):

Before Sampling

After Sampling

Temperature (°F): ~62
Barometric Pressure (in. Hg): 30.45

~60
30.32

PID readings at sample location (ppb): ~0.1 ppmV ambient in basement

Photographs taken before sampling? Yes / No If Yes, what time: 09:56 Taken by: NMT

Photographs taken after sampling? Yes / No If Yes, what time: 09:56 Taken by: NMT

Was the building aired out prior to sample collection? Yes / No If yes, how long?

Windows open? Yes / No **Ventilation fans?** Yes / No

Was there significant precipitation within 12 hours of (or during) the sampling event? Yes / No

Were any of the residents home during sampling? Yes / No If yes, provide detail: Tenants on second floor and up

Did any of the occupants NOT follow instruction for residents? Yes / No If yes, describe below:

Air intake at ~5'.

Basement Ceiling Height (to joists): Front ~10' ; Back ~10'.

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process. Also, note the usage of the basement (storage only, laundry, etc.):

-new trash bins (empty), laundry machine, circular saw, various paints/joint compounds present (1-5gallon pails)
-sump present in basement



AMBIENT AIR SAMPLING CHECKLIST

Sampling Location:
103 Washington

Sample ID: 045163-103Wash-F1

Date: 3/4/2024

Sampling personnel: D. Miller, N. Troccoli

Summa Canister ID: 3308

Flow Regulator ID: 02081

Sample Type / Analysis Method: TO15/Summa

Sampling Start Time: 10:05 (3/4/2024)

Sampling Finish Time: 010:05 (3/5/2024)

3/4/2024

3/5/2024

3/5/2024

During Sampling

Time	Vacuum
10:05	-30.66
9:36	-9.73
10:05	-9.26

Did Summa canister go to ambient pressure? Yes / No

Vacuum pressure reported by Laboratory: --- (Initial = -29.5 in. Hg)

Pressure gauge reading (Pre-opening): Flow Controller: 0.00 in.Hg (-30.66 upon opening)

Pressure gauge reading (After sample collected): Flow Controller: -9.26 in. Hg

Environmental Conditions (Outside):

Before Sampling

After Sampling

Temperature (°F): ~52
Barometric Pressure (in. Hg): 30.44
Prevailing Wind Direction: 5 mph out of E
General Weather Conditions: Partly Cloudy

~44
30.31
5 mph out of E
Cloudy, light mist

Environmental Conditions (At Sample Location):

Before Sampling

After Sampling

Temperature (°F): ~68
Barometric Pressure (in. Hg): 30.45

~62
30.3

PID readings at sample location (ppb): ~0.1 ppmV ambient in basement

Photographs taken before sampling? Yes / No If Yes, what time: 10:00 Taken by: NMT

Photographs taken after sampling? Yes / No If Yes, what time: 10:05 Taken by: NMT

Was the building aired out prior to sample collection? Yes / No If yes, how long?

Windows open? Yes / No **Ventilation fans?** Yes / No

Was there significant precipitation within 12 hours of (or during) the sampling event? Yes / No

Were any of the residents home during sampling? Yes / No If yes, provide detail: Tenants on second floor and up

Did any of the occupants NOT follow instruction for residents? Yes / No If yes, describe below:

Air intake at ~5'.

Basement Ceiling Height (to joists): Front ~10' ; Back ~10'.

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process. Also, note the usage of the basement (storage only, laundry, etc.):

-located in commercial space of first floor
-new furniture present
-fresh drywall, floors are still plywood



SUB-SLAB SAMPLING CHECKLIST

Sampling Location:
103 Washington

Sample ID: 045163-103Wash-SV1

Date: 3/5/2024

Sampling personnel: D. Miller, N. Troccoli

Summa Canister ID: 198

Flow Regulator ID: 02349

Sample Type / Analysis Method: SUMMA/TO-15

Sampling Start Time: 10:25

Sampling Finish Time: 11:03

During Sampling	
Time	Vacuum
10:25	-30.28
10:40	-18.65
10:55	-7.15
11:03	-1.65

Did Summa Canister go to ambient pressure? Yes / No ☒

Pressure gauge reading (Pre-opening): Flow Controller: 0.00 in.Hg (-30.28 upon opening)

Pressure gauge reading (After sample collected): Flow Controller: -1.65 in.Hg

Environmental Conditions (Outside):

Before Sampling

After Sampling

Temperature:	~44 °F	~44 °F
Barometric Pressure:	30.30 in Hg	30.30 in Hg
Prevailing Wind Direction:	5 mph out of E	5 mph out of E
General Weather Conditions:	Cloudy/Mist	Cloudy/Mist

Photographs taken before sampling? Yes ☒ No ☐ If Yes, what time: 10:24 Taken by: NMT

Vacuum prior to sampling (in. WC): 0.000

Ambient air concentration (ppb): 0.1 to 0.2 ppmV

Soil gas concentration prior to sampling (ppm): 0.4 to 0.5 ppmv

Vapor point purged for ~5 min with a MiniRAE (500-600 cc/min) prior to sampling.

Comments:

-SV canister had to be shut off prior to one hour mark



SUB-SLAB SAMPLING CHECKLIST

Sampling Location:
103 Washington

Sample ID: 045163-103Wash-SV2

Date: 3/5/2024

Sampling personnel: D. Miller, N. Troccoli

Summa Canister ID: 2193

Flow Regulator ID: 01740

Sample Type / Analysis Method: SUMMA/TO-15

Sampling Start Time: 10:28

Sampling Finish Time: 10:58

During Sampling	
Time	Vacuum
10:28	-30.65
10:43	-17.98
10:58	-1.48

Did Summa Canister go to ambient pressure? Yes / No ☒

Pressure gauge reading (Pre-opening): Flow Controller: 0.00 in.Hg (-30.65 upon opening)

Pressure gauge reading (After sample collected): Flow Controller: -1.48 in.Hg

Environmental Conditions (Outside):

Before Sampling

After Sampling

Temperature:	~44 °F	~44 °F
Barometric Pressure:	30.30 in Hg	30.30 in Hg
Prevailing Wind Direction:	5 mph out of E	5 mph out of E
General Weather Conditions:	Cloudy/Mist	Cloudy/Mist

Photographs taken before sampling? Yes ☒ No ☐ If Yes, what time: 10:24 Taken by: NMT

Vacuum prior to sampling (in. WC): 0.000

Ambient air concentration (ppb): 0.1 to 0.2 ppmV

Soil gas concentration prior to sampling (ppm): 0.1 to 0.2 ppmv

Vapor point purged for ~5 min with a MiniRAE (500-600 cc/min) prior to sampling.

Comments:

-SV canister had to be shut off prior to one hour mark

Appendix F Boring and Monitoring Well Installation Logs

BORING INFORMATION LOCATION: 50 Tufts St GROUND SURFACE EL. (ft): NM VERTICAL DATUM: NM TOTAL DEPTH (ft): 5.0 LOGGED BY: N. Troccoli							BORING B101 PAGE 1 of 1							
DRILLING INFORMATION HAMMER TYPE: Automatic AUGER I.D./O.D.: NA / NA DRILLING METHOD: Direct Push WATER LEVEL DEPTHS (ft): Not measured									CASING I.D./O.D.: 2 inch / NA DRILL ROD O.D.: NM CORE BARREL TYPE: Macrocore CORE BARREL I.D./O.D. NA / NA					
ABBREVIATIONS: Pen. = Penetration Length Rec. = Recovery Length RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen., % WOR = Weight of Rods WOH = Weight of Hammer									S = Split Spoon Sample C = Core Sample U = Undisturbed Sample SC = Sonic Core DP = Direct Push Sample HSA = Hollow-Stem Auger		Qp = Pocket Penetrometer Strength Sv = Pocket Torvane Shear Strength LL = Liquid Limit PI = Plasticity Index PID = Photoionization Detector I.D./O.D. = Inside Diameter/Outside Diameter		NA, NM = Not Applicable, Not Measured Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.	
Elev. (ft)	Depth (ft)	Sample Information				Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description						
		Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD									
		S1	0 to 5	60/42	PUSH	S1 (0-3") PID = 0.0 ppm S1 (3-42") PID = 0.0 ppm		(0-3") ASPHALT (3-42") NARROWLY GRADED SAND WITH SILT (SP-SM): ~80% Fine to coarse sand, ~10% nonplastic fines, ~10% gravel up to 0.75", brown, no odor.						
	5						SAND	End of boring at 5'.						
NOTES: Environmental sample collected at (0-12"), (12-36"), and (36-42").							PROJECT NAME: Tufts Street CITY/STATE: Somerville, Massachusetts GEI PROJECT NUMBER: 045163							

GEI WOBURN STD 1-LOCATION-LAYER NAME BORING LOGS.GPJ 6/25/24



BORING INFORMATION LOCATION: 50 Tufts St GROUND SURFACE EL. (ft): NM VERTICAL DATUM: NM TOTAL DEPTH (ft): 5.0 LOGGED BY: N. Troccoli							BORING B102 PAGE 1 of 1							
DRILLING INFORMATION HAMMER TYPE: Automatic AUGER I.D./O.D.: NA / NA DRILLING METHOD: Direct Push WATER LEVEL DEPTHS (ft): Not measured									CASING I.D./O.D.: 2 inch / NA DRILL ROD O.D.: NM CORE BARREL TYPE: Macrocore CORE BARREL I.D./O.D. NA / NA					
ABBREVIATIONS: Pen. = Penetration Length Rec. = Recovery Length RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen., % WOR = Weight of Rods WOH = Weight of Hammer									S = Split Spoon Sample C = Core Sample U = Undisturbed Sample SC = Sonic Core DP = Direct Push Sample HSA = Hollow-Stem Auger		Qp = Pocket Penetrometer Strength Sv = Pocket Torvane Shear Strength LL = Liquid Limit PI = Plasticity Index PID = Photoionization Detector I.D./O.D. = Inside Diameter/Outside Diameter		NA, NM = Not Applicable, Not Measured Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.	
Elev. (ft)	Depth (ft)	Sample Information				Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description						
		Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD									
		S1	0 to 5	60/30	NA	S1 (0-3") PID = 0.0 ppm S1 (3-30") PID = 0.1 ppm		(0-3") ASPHALT (3-30") NARROWLY GRADED SAND WITH SILT (SP-SM): ~80% Fine to coarse sand, ~10% nonplastic fines, ~10% gravel up to 0.75", light brown, no odor.						
	5						SAND	End of boring at 5'.						
NOTES: Environmental sample collected at (0-12") and (12-30").							PROJECT NAME: Tufts Street CITY/STATE: Somerville, Massachusetts GEI PROJECT NUMBER: 045163							

GEI WOBURN STD 1-LOCATION-LAYER NAME BORING LOGS.GPJ 6/25/24



BORING INFORMATION LOCATION: 50 Tufts St GROUND SURFACE EL. (ft): NM VERTICAL DATUM: NM TOTAL DEPTH (ft): 5.0 LOGGED BY: N. Troccoli							BORING B104 PAGE 1 of 1							
DRILLING INFORMATION HAMMER TYPE: Automatic AUGER I.D./O.D.: NA / NA DRILLING METHOD: Direct Push WATER LEVEL DEPTHS (ft): Not measured									CASING I.D./O.D.: 2 inch / NA DRILL ROD O.D.: NM CORE BARREL TYPE: Macrocore CORE BARREL I.D./O.D. NA / NA					
ABBREVIATIONS: Pen. = Penetration Length Rec. = Recovery Length RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen., % WOR = Weight of Rods WOH = Weight of Hammer									S = Split Spoon Sample C = Core Sample U = Undisturbed Sample SC = Sonic Core DP = Direct Push Sample HSA = Hollow-Stem Auger		Qp = Pocket Penetrometer Strength Sv = Pocket Torvane Shear Strength LL = Liquid Limit PI = Plasticity Index PID = Photoionization Detector I.D./O.D. = Inside Diameter/Outside Diameter		NA, NM = Not Applicable, Not Measured Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.	
Elev. (ft)	Depth (ft)	Sample Information				Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description						
		Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD									
		S1	0 to 5	60/40	NA	S1 (0-3") PID = 0.1 ppm S1 (3-26") PID = 0.9 ppm S1 (26-40") PID = 0.3 ppm		(0-3") ASPHALT						
							SAND	(3-26") SILTY SAND (SM): ~75% Fine to coarse sand, ~15% nonplastic fines, ~10% gravel up to 0.5", brown, no odor.						
								(26-40") NARROWLY GRADED SAND WITH SILT (SP-SM): ~85% Fine to coarse sand, ~10% nonplastic fines, ~5% gravel up to 0.5", light brown, no odor.						
	5							End of boring at 5'.						
NOTES: Environmental sample collected at (0-12"), (12-36"), and (36-40").							PROJECT NAME: Tufts Street							
							CITY/STATE: Somerville, Massachusetts							
							GEI PROJECT NUMBER: 045163							

GEI WOBURN STD 1-LOCATION-LAYER NAME BORING LOGS.GPJ 6/25/24



BORING INFORMATION LOCATION: 50 Tufts St GROUND SURFACE EL. (ft): NM VERTICAL DATUM: NM TOTAL DEPTH (ft): 5.0 LOGGED BY: N. Troccoli							BORING B105 PAGE 1 of 1							
DRILLING INFORMATION HAMMER TYPE: Automatic AUGER I.D./O.D.: NA / NA DRILLING METHOD: Direct Push WATER LEVEL DEPTHS (ft): Not measured									CASING I.D./O.D.: 2 inch / NA DRILL ROD O.D.: NM CORE BARREL TYPE: Macrocore CORE BARREL I.D./O.D. NA / NA					
ABBREVIATIONS: Pen. = Penetration Length Rec. = Recovery Length RQD = Rock Quality Designation = Length of Sound Cores>4 in / Pen., % WOR = Weight of Rods WOH = Weight of Hammer									S = Split Spoon Sample C = Core Sample U = Undisturbed Sample SC = Sonic Core DP = Direct Push Sample HSA = Hollow-Stem Auger		Qp = Pocket Penetrometer Strength Sv = Pocket Torvane Shear Strength LL = Liquid Limit PI = Plasticity Index PID = Photoionization Detector I.D./O.D. = Inside Diameter/Outside Diameter		NA, NM = Not Applicable, Not Measured Blows per 6 in.: 140-lb hammer falling 30 inches to drive a 2-inch-O.D. split spoon sampler.	
Elev. (ft)	Depth (ft)	Sample Information				Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description						
		Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD									
		S1	0 to 5	60/33		S1 (0-8") PID = 0.0 ppm S1 (8-33") PID = 0.1 ppm	SAND	(0-8") NARROWLY GRADED SAND WITH GRAVEL (SP): ~75% Fine to coarse sand, ~20% gravel up to 0.5", ~5% nonplastic fines, black/dark brown, no odor. (26-40") NARROWLY GRADED SAND WITH SILT (SP-SM): ~85% Fine to coarse sand, ~10% nonplastic fines, ~5% gravel up to 0.5", brown, no odor. Lens of large tree root from (8-10").						
	5							End of boring at 5'.						
NOTES: Environmental sample collected at (0-12") and (12-33").							PROJECT NAME: Tufts Street							
							CITY/STATE: Somerville, Massachusetts							
							GEI PROJECT NUMBER: 045163							

GEI WOBURN STD 1-LOCATION-LAYER NAME BORING LOGS.GPJ 6/25/24



BORING INFORMATION

LOCATION: 50 Tufts Street - south gravel area

GROUND SURFACE EL. (ft): NM

VERTICAL DATUM:

TOTAL DEPTH (ft): 25.0

LOGGED BY: D. Miller

DATE START/END: 3/18/2024 - 3/18/2024

DRILLING COMPANY: Northern Drill Service, Inc.

DRILLER NAME: Tim Tucker

RIG TYPE: Mobile B-53 Track-Mounted

BORING**MW203R**

PAGE 1 of 1

DRILLING INFORMATION

HAMMER TYPE: Automatic

CASING I.D./O.D.: 2 inch / NA

CORE BARREL TYPE:

AUGER I.D./O.D.: 4.25 inch / NA

DRILL ROD O.D.: NM

CORE BARREL I.D./O.D. NA / NA

DRILLING METHOD: Hollow Stem Auger

WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:

Pen. = Penetration Length
 Rec. = Recovery Length
 RQD = Rock Quality Designation
 = Length of Sound Cores > 4 in / Pen., %
 WOR = Weight of Rods
 WOH = Weight of Hammer

S = Split Spoon Sample
 C = Core Sample
 U = Undisturbed Sample
 SC = Sonic Core
 DP = Direct Push Sample
 HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
 Sv = Pocket Torvane Shear Strength
 LL = Liquid Limit
 PI = Plasticity Index
 PID = Photoionization Detector
 I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
 Blows per 6 in.: 140-lb hammer falling
 30 inches to drive a 2-inch-O.D.
 split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information				Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD			
		S1	0 to 2	24/16	4-9-17- 13	PID: S1 = 0.6 ppmv	Fill	S1 WIDELY GRADED SAND WITH GRAVEL (SW): ~70% sand, ~25% subangular gravel up to 1", ~5% nonplastic fines, grayish brown, dry. Top ~2" is dense grade gravel.
	5	S2	5 to 7	24/16	7-7-5-7	PID: S2 = 0.8 ppmv		S2 SILTY SAND (SM): ~60% fine to coarse sand, ~35% nonplastic fines, ~5% subangular gravel up to 0.5", grayish brown, dry. Contains ash-like material and brick fragments. Contains thin plastic sheet piece at (14").
	10	S3	10 to 12	24/18	5-8-10- 23	PID: S3 = 4.9 ppmv	Sandy Silt	S3 SANDY SILT (ML): ~70% nonplastic fines, ~25% mostly fine sand, ~5% subangular gravel up to 0.5", dry, mottled gray/brown.
	15	S4	15 to 17	24/18	20-31- 26-35	PID: S4 = 51.6 ppmv		S4 SANDY SILT WITH GRAVEL (ML): ~70% nonplastic fines, ~15% fine to coarse sand, ~15% subangular gravel up to 1", dry, mottled gray/brown. Contains seam of ~100% brown sand with black ash-like material.
	20	S5	20 to 22	24/16	7-12-11- 8	PID: S5 = 1028 ppmv	Silty Sand	S5 SILTY SAND WITH GRAVEL (ML): ~70% fine to coarse sand, ~15% nonplastic fines, ~15% subangular and subround gravel up to 1", wet, gray.
	25							END OF BORING AT 25'. BACKFILLED WITH SOIL CUTTINGS TO 23'. COMPLETED AS MONITORING WELL.

NOTES: Soil samples screened in the field for VOCs using a PID with 10.6 eV lamp, calibrated to an isobutylene standard.
 ppmv: parts per million by volume.

PROJECT NAME: Tufts Street

CITY/STATE: Somerville, Massachusetts

GEI PROJECT NUMBER: 045163



BORING INFORMATION

LOCATION: 50 Tufts Street

GROUND SURFACE EL. (ft): NM

VERTICAL DATUM:

TOTAL DEPTH (ft): 23.0

LOGGED BY: D. Miller

DATE START/END: 3/18/2024 - 3/18/2024

DRILLING COMPANY: Northern Drill Service, Inc.

DRILLER NAME: Tim Tucker

RIG TYPE: Mobile B-53 Track-Mounted

BORING**SH-MW2R**

PAGE 1 of 1

DRILLING INFORMATION

HAMMER TYPE: Automatic

CASING I.D./O.D.: 2 inch / NA

CORE BARREL TYPE:

AUGER I.D./O.D.: 4.25 inch / NA

DRILL ROD O.D.: NM

CORE BARREL I.D./O.D. NA / NA

DRILLING METHOD: Hollow Stem Auger

WATER LEVEL DEPTHS (ft): Not measured

ABBREVIATIONS:

Pen. = Penetration Length
Rec. = Recovery Length
RQD = Rock Quality Designation
= Length of Sound Cores > 4 in / Pen., %
WOR = Weight of Rods
WOH = Weight of Hammer

S = Split Spoon Sample
C = Core Sample
U = Undisturbed Sample
SC = Sonic Core
DP = Direct Push Sample
HSA = Hollow-Stem Auger

Qp = Pocket Penetrometer Strength
Sv = Pocket Torvane Shear Strength
LL = Liquid Limit
PI = Plasticity Index
PID = Photoionization Detector
I.D./O.D. = Inside Diameter/Outside Diameter

NA, NM = Not Applicable, Not Measured
Blows per 6 in.: 140-lb hammer falling
30 inches to drive a 2-inch-O.D.
split spoon sampler.

Elev. (ft)	Depth (ft)	Sample Information				Drilling Remarks/ Field Test Data	Layer Name	Soil and Rock Description
		Sample No.	Depth (ft)	Pen./ Rec. (in)	Blows per 6 in. or RQD			
		S1	0.5 to 2.5	24/18	6-16-11- 6	PID: S1 (0-8") = 12.8 ppmv PID: S1 (8-18") = 3.5 ppmv		(0-6") Asphalt. S1 (0-8") WIDELY GRADED SAND WITH GRAVEL (SW): ~80% sand, ~15% subangular gravel up to 1", ~5% nonplastic fines, dry, dark brown. S1 (8-18") SILTY SAND (SM): ~60% fine to coarse sand, ~35% low-plastic fines, ~5% subangular gravel up to 0.5", dry, brown. Contains brick and asphalt fragments.
	5	S2	5 to 7	24/12	1-5-4-3	PID: S2 = 3.6 ppmv	Fill	S2 SANDY SILT (ML): ~60% low-plastic fines, ~35% mostly fine sand, ~5% subangular gravel up to 1", moist, grayish brown. Contains brick and some ash-like material. Contains crushed rock from (6-8") and crushed brick from (8-10").
	10	S3	10 to 12	24/22	5-20-21- 22	PID: S3 = 6.4 ppmv	Silt	S3 SANDY SILT WITH GRAVEL (ML): ~70% nonplastic fines, ~15% mostly fine sand, ~15% subrounded gravel up to 1", dry, olive-brown.
	15	S4	15 to 15.8	9/8	92- 100/3"	PID: S4 = 33.2 ppmv	Silty Sand	S4 (0-3") SILTY SAND WITH GRAVEL (SM): ~70% fine to coarse sand, ~15% nonplastic fines, ~15% subangular and subrounded gravel up to 1", moist, brown. S4 (3-8") Crushed gray rock.
	20	S5	20 to 20.8	10/10	53- 100/4"	PID: S5 = 55.8 ppmv		S5 (0-5") WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM): ~50% sand, ~40% subangular gravel up to 1", ~10% nonplastic fines, wet, gray/brown. S5 (5-10") Crushed gray rock.
	25							REFUSAL AT 23'. COMPLETED AS MONITORING WELL.

NOTES: Soil samples screened in the field for VOCs using a PID with 10.6 eV lamp, calibrated to an isobutylene standard.
ppmv: parts per million by volume.

PROJECT NAME: Tufts Street

CITY/STATE: Somerville, Massachusetts

GEI PROJECT NUMBER: 045163

GEI

Consultants

Groundwater Well Installation Log

SH-MW2R

Project	Tufts Street		
City / Town	Somerville, MA		
Client	UniFirst		
Contractor	Northern Drill Service		
Driller	T. Tucker, C. Plateau	GEI Rep.	D. Miller

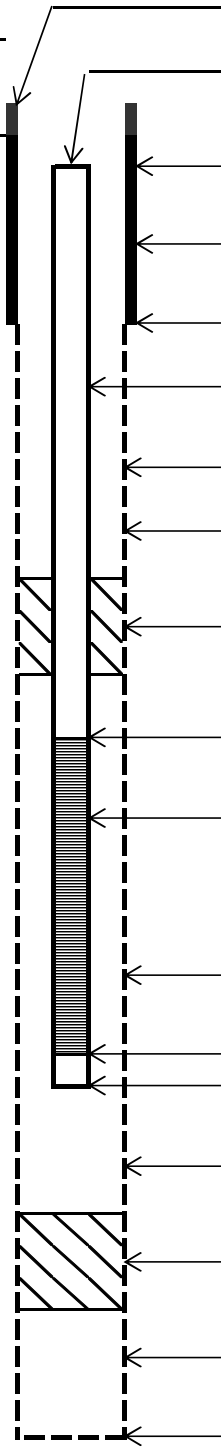
GEI Proj. No.	1904684
Location	50 Tufts Street
Install Date	3/18/2024

Survey

Datum:	NAVD88		Length of Surface Casing above Ground	flushmount
---------------	---------------	--	--	-------------------

Ground

Elevation: _____



Length of Surface Casing above Ground flushmount

Dist. Top of Surf. Casing to Top of Riser Pipe	NA
--	----

Type and Thickness of Seal around Surface Casing	rapid set concrete

ID of Surface Casing	4"
----------------------	----

Type of Surface Casing	steel roadbox
------------------------	---------------

Depth Bottom of Surface Casing 10"

ID and OD of Riser Pipe 2" ID / 2.375" OD

Type of Riser Pipe	Sch. 40 PVC
--------------------	-------------

Type of Backfill around Riser Pipe sand/soil cuttings

Diameter of Borehole	4.25"
----------------------	-------

Depth Top of Seal 6'

Type of Seal	granular bentonite
--------------	--------------------

Depth Bottom of Seal	8'
----------------------	----

Depth Top of Screened Section 10'

Type of Screen Sch. 40 PVC

Description of Screen Openings	0.010"
--------------------------------	--------

ID and OD of Screened Section	2" ID / 2.375" OD
-------------------------------	-------------------

Type of Filter Material	sand
-------------------------	------

Depth Bottom of Screened Section 23'

Depth Bottom of Silt Trap	NA
---------------------------	----

Depth Bottom of Filter Material 23'

Depth Top of Seal	NA
-------------------	----

Type of Seal	NA
--------------	----

Depth Bottom of Seal	NA
----------------------	----

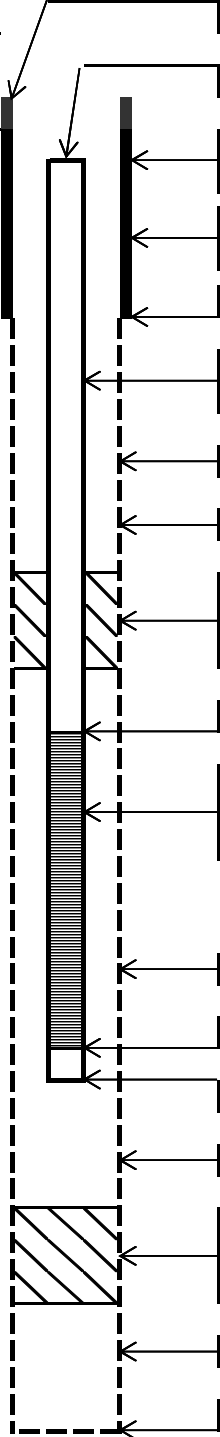
Type of Backfill below Filter Material	NA
--	----

Bottom of Borehole 23'

Notes:

NA = Not applicable

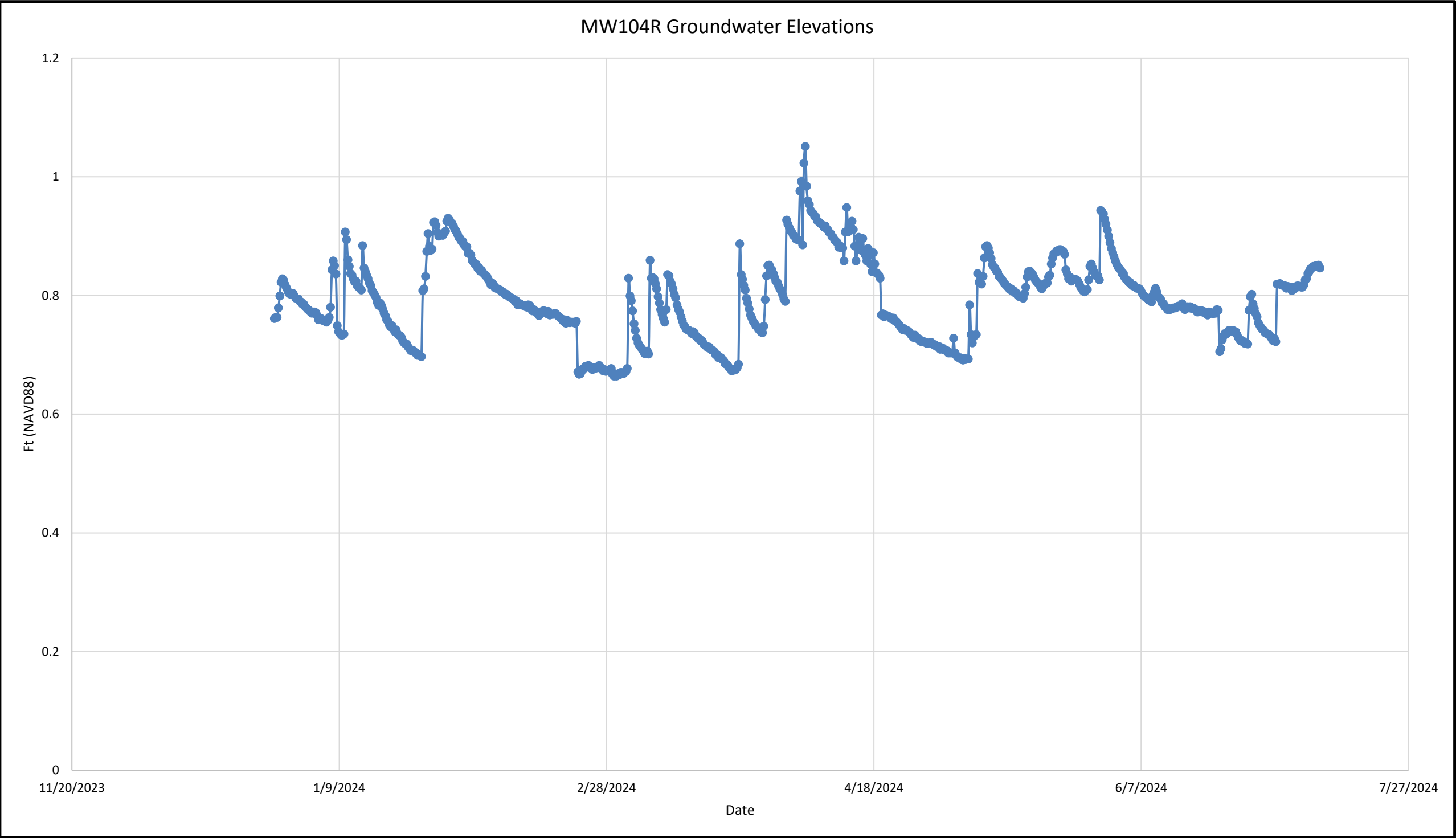


Groundwater Well Installation Log				MW203R					
Project		Tufts Street		GEI Proj. No. 1904684					
City / Town		Somerville, MA		Location 50 Tufts Street					
Client		UniFirst		Southern gravel area					
Contractor		Northern Drill Service							
Driller		T. Tucker, C. Flateau		GEI Rep. D. Miller					
				Install Date 3/18/2024					
Survey Datum: NAVD88 Ground Elevation: <table><thead><tr><th>Date</th><th>Time</th><th>Distance to ▼ below top of riser pipe</th></tr></thead><tbody><tr><td>3/18/2024</td><td>15:00</td><td>20.50'</td></tr></tbody></table> General Soil Conditions (Not to Scale)  Length of Surface Casing above Groundflushmount Dist. Top of Surf. Casing to Top of Riser PipeNA Type and Thickness of Seal around Surface Casingrapid set concrete ID of Surface Casing4" Type of Surface Casingsteel roadbox Depth Bottom of Surface Casing10" ID and OD of Riser Pipe2" ID / 2.375" OD Type of Riser Pipesch. 40 PVC Type of Backfill around Riser Pipesand/soil cuttings Diameter of Borehole4.25" Depth Top of Seal9' Type of Sealgranular bentonite Depth Bottom of Seal11' Depth Top of Screened Section13' Type of ScreenSch. 40 PVC Description of Screen Openings0.010" ID and OD of Screened Section2" ID / 2.375" OD Type of Filter Materialsand Depth Bottom of Screened Section23' Depth Bottom of Silt TrapNA Depth Bottom of Filter Material23' Depth Top of SealNA Type of SealNA Depth Bottom of SealNA Type of Backfill below Filter Materialsand/cuttings Bottom of Borehole25'				Date	Time	Distance to ▼ below top of riser pipe	3/18/2024	15:00	20.50'
Date	Time	Distance to ▼ below top of riser pipe							
3/18/2024	15:00	20.50'							

Notes:
NA = Not applicable
Location drilled to 25' initially; backfilled to 23' to set well.



Appendix G Transducer Data Graphs



Phase V Status Report No. 26 and
Remedial Monitoring Report No. 41
50 Tufts Street, Somerville, Massachusetts

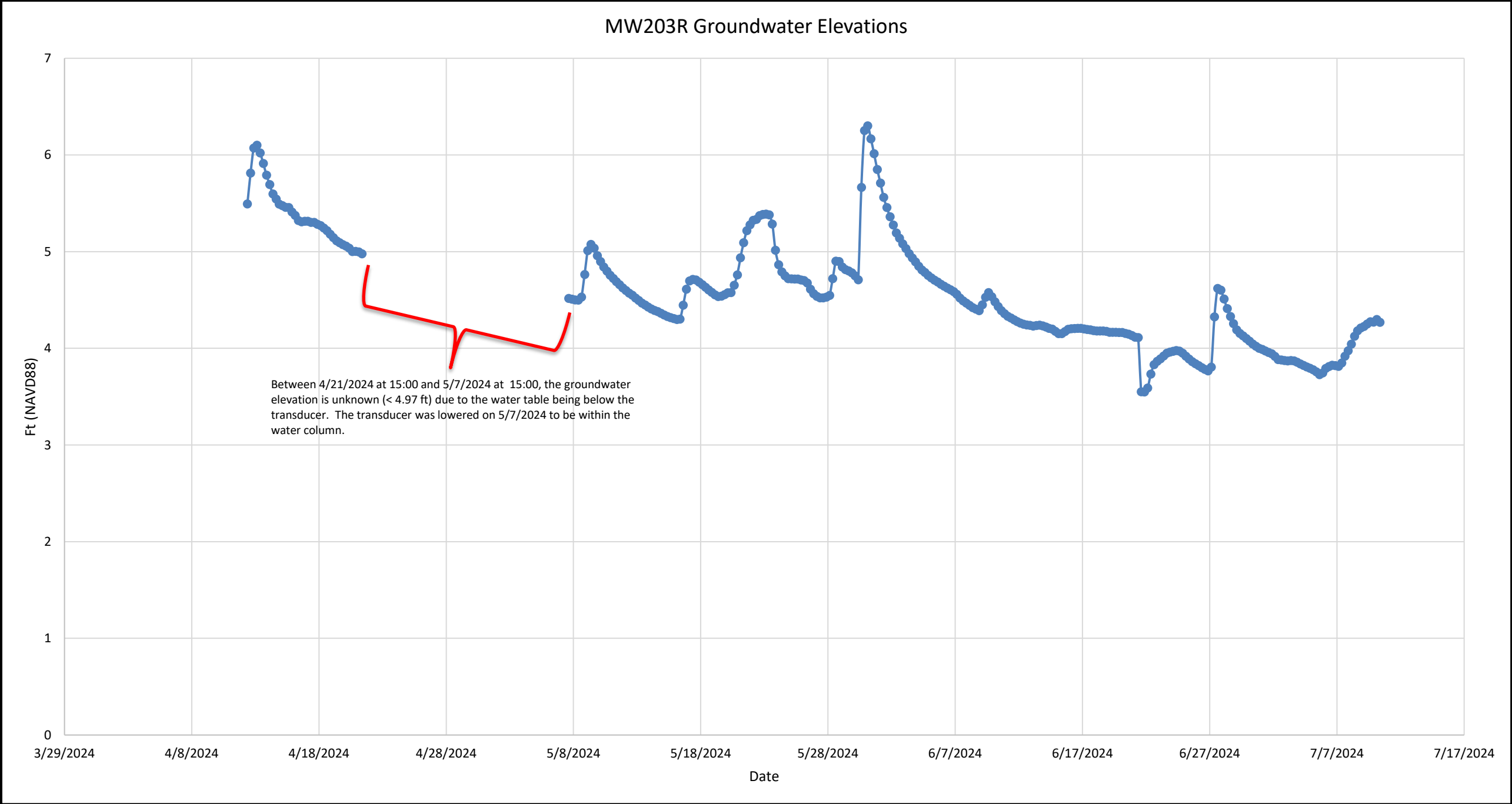
UniFirst Corporation
Wilmington, Massachusetts



Project 04516-3

MW104R Transducer Data

August 2024



Phase V Status Report No. 26 and
Remedial Monitoring Report No. 41
50 Tufts Street, Somerville, Massachusetts

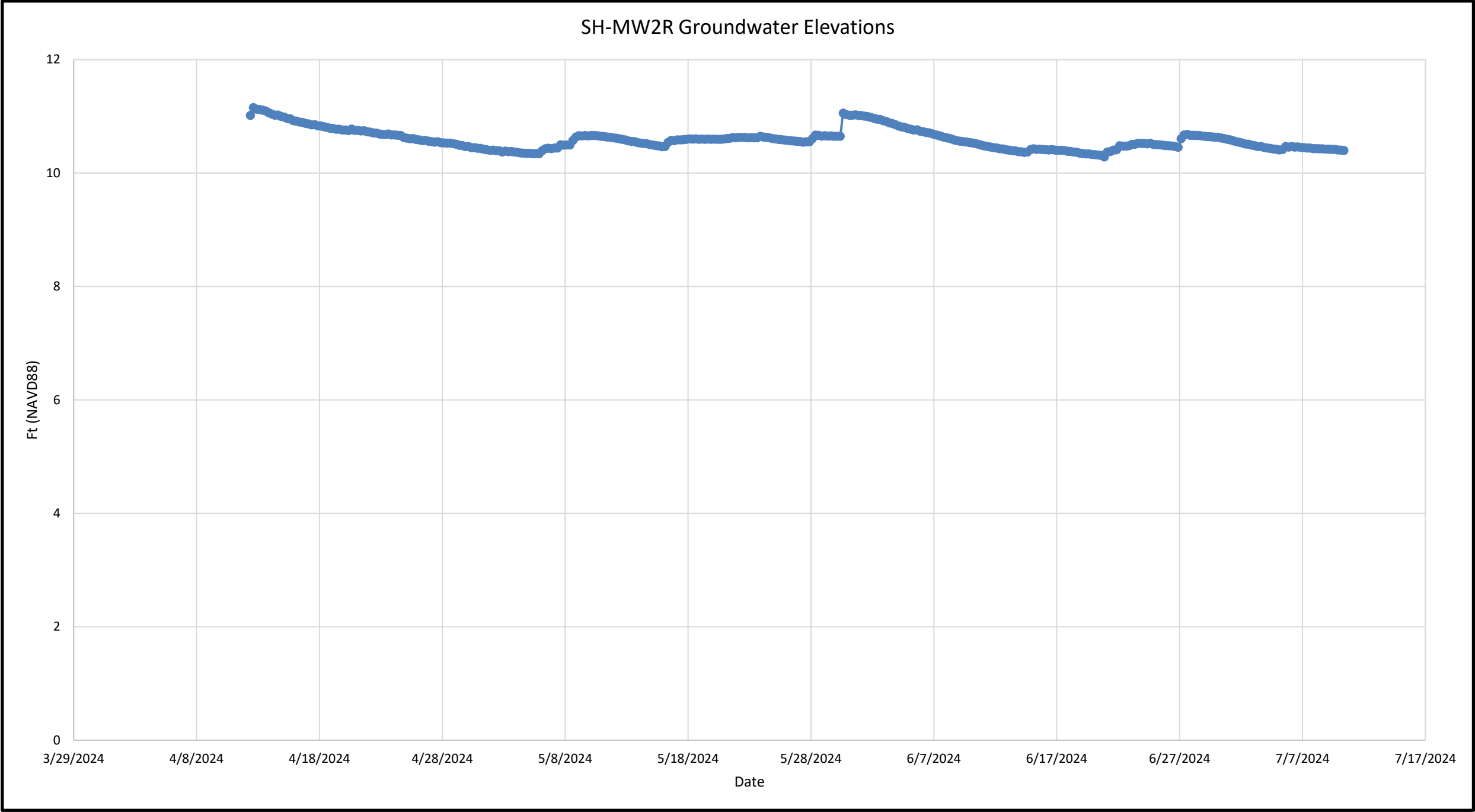
UniFirst Corporation
Wilmington, Massachusetts



Project 04516-3

MW203R Transducer Data

August 2024



Phase V Status Report No. 26 and
Remedial Monitoring Report No. 41
50 Tufts Street, Somerville, Massachusetts

UniFirst Corporation
Wilmington, Massachusetts



SH-MW2R Transducer Data

Project 04516-3

August 2024

Appendix H Field Monitoring Forms and Inspection Logs

**50 Tufts Street Sub-Slab Depressurization System
Monthly Monitoring Form**

GENERAL MONITORING INFORMATION																																																																																																	
GEI Field Representative(s): 				Monitoring Start Time: 12:30 PM Monitoring End Time: 1:15 PM																																																																																													
Date: 01/08/24																																																																																																	
Weather: 30's, Sunny																																																																																																	
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	Instrument	Manufacturer	Model	Calibrated To:	Successful Calibration?																																																																																												
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FIELD MEASUREMENTS & OBSERVATIONS																																																																																																	
System Status/Configuration <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>Fenced Enclosure Secure?</td><td align="center">Yes</td></tr> <tr><td>Blower On?</td><td align="center">Yes</td></tr> <tr><td>Condensate Accumulated?</td><td align="center">No</td></tr> <tr><td>Condensate Drained?</td><td align="center">NA</td></tr> <tr><td>Hour Meter Reading?</td><td align="center">NM</td></tr> <tr><td>Lead Carbon Unit?</td><td align="center">A</td></tr> <tr><td>Secondary Carbon Unit?</td><td align="center">B</td></tr> <tr><td>Polish Carbon Unit?</td><td align="center">N/A</td></tr> <tr><td>VFD Setting (Hz)</td><td align="center">60</td></tr> </table>		Fenced Enclosure Secure?	Yes	Blower On?	Yes	Condensate Accumulated?	No	Condensate Drained?	NA	Hour Meter Reading?	NM	Lead Carbon Unit?	A	Secondary Carbon Unit?	B	Polish Carbon Unit?	N/A	VFD Setting (Hz)	60	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th align="center" colspan="3">Pressure/VOC Measurements</th> </tr> <tr> <th align="center">Monitoring Point</th> <th align="center">Pressure (in. H₂O)</th> <th align="center">VOC (ppm)</th> </tr> </thead> <tbody> <tr><td align="center">West Header</td><td align="center">-2.09</td><td align="center">1.6</td></tr> <tr><td align="center">Center Header</td><td align="center">-2.06</td><td align="center">6.4</td></tr> <tr><td align="center">East Header</td><td align="center">-2.07</td><td align="center">1.6</td></tr> <tr><td align="center">North Header</td><td align="center">-1.92</td><td align="center">0.3</td></tr> <tr><td align="center">South Header</td><td align="center">-2.20</td><td align="center">5.1</td></tr> <tr><td align="center">Combined System Influent</td><td align="center">-6.14</td><td align="center">2.6</td></tr> <tr><td align="center">Blower Effluent</td><td align="center">27.90</td><td align="center">2.8</td></tr> <tr><td align="center">Lead Carbon Effluent</td><td align="center">18.60</td><td align="center">0.0</td></tr> <tr><td align="center">Secondary Carbon Effluent</td><td align="center">1.56</td><td align="center">0.0</td></tr> <tr><td align="center">System Effluent</td><td align="center" colspan="2">Effluent is secondary tank - Tank C offline</td></tr> <tr><td align="center">Ambient Air</td><td align="center" style="background-color: #cccccc;"></td><td align="center">0.0</td></tr> <tr><td align="center">Blower Filter Inlet</td><td align="center">-19</td><td align="center" style="background-color: #cccccc;"></td></tr> <tr><td align="center">Blower Filter Outlet</td><td align="center">NM</td><td align="center" style="background-color: #cccccc;"></td></tr> </tbody> </table>			Pressure/VOC Measurements			Monitoring Point	Pressure (in. H ₂ O)	VOC (ppm)	West Header	-2.09	1.6	Center Header	-2.06	6.4	East Header	-2.07	1.6	North Header	-1.92	0.3	South Header	-2.20	5.1	Combined System Influent	-6.14	2.6	Blower Effluent	27.90	2.8	Lead Carbon Effluent	18.60	0.0	Secondary Carbon Effluent	1.56	0.0	System Effluent	Effluent is secondary tank - Tank C offline		Ambient Air		0.0	Blower Filter Inlet	-19		Blower Filter Outlet	NM		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th align="center" colspan="2">System Flow Rate Data</th> </tr> <tr> <th align="center">Velocity (ft/min)</th> <th align="center">System Flowrate (CFM):</th> </tr> </thead> <tbody> <tr> <td align="center">3525</td> <td align="center">308</td> </tr> </tbody> </table> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th align="center" colspan="2">Tank Exterior Monitoring</th> </tr> <tr> <th align="center" colspan="2">Bubbling Paint Visible?</th> </tr> <tr> <th align="center">Tank</th> <th align="center">Y/N</th> </tr> </thead> <tbody> <tr><td align="center">A</td><td align="center">Yes</td></tr> <tr><td align="center">B</td><td align="center">Yes</td></tr> <tr><td align="center">C</td><td align="center">Yes</td></tr> </tbody> </table> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th align="center" colspan="2">Rust Visible?</th> </tr> <tr> <th align="center">Tank</th> <th align="center">Y/N</th> </tr> </thead> <tbody> <tr><td align="center">A</td><td align="center">Yes</td></tr> <tr><td align="center">B</td><td align="center">Yes</td></tr> <tr><td align="center">C</td><td align="center">Yes</td></tr> </tbody> </table>		System Flow Rate Data		Velocity (ft/min)	System Flowrate (CFM):	3525	308	Tank Exterior Monitoring		Bubbling Paint Visible?		Tank	Y/N	A	Yes	B	Yes	C	Yes	Rust Visible?		Tank	Y/N	A	Yes	B	Yes	C	Yes
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**50 Tufts Street Sub-Slab Depressurization System
Monthly Monitoring Form**

GENERAL MONITORING INFORMATION						
GEI Field Representative(s):	N. Troccoli			Monitoring Start Time:	12:00 PM	
				Monitoring End Time:	12:30 PM	
Date:	02/12/24					
Weather:	Mid 30's, Sunny					
INSTRUMENTATION INFORMATION						
	Instrument	Manufacturer	Model	Calibrated To:	Successful Calibration?	
	PID (ppm)	RAE Systems	MiniRAE 3000	100 ppm Isobutylene	Y / N 100.2 ppm	
	Manometer (in. H ₂ O)	Dwyer	Mark III-475-0 Series	N/A	Zeroed before each reading	
	Anemometer (CFM)	Reed	R4500SD	N/A	N/A	
FIELD MEASUREMENTS & OBSERVATIONS						
System Status/Configuration		Pressure/VOC Measurements			System Flow Rate Data	
		Monitoring Point	Pressure (in. H₂O)	VOC (ppm)	Velocity (ft/min)	System Flowrate (CFM):
Fenced Enclosure Secure?	Yes	West Header	NM	NM	NM	NM
Blower On?	Yes	Center Header	NM	NM		
Condensate Accumulated?	No	East Header	NM	NM	Tank Exterior Monitoring Bubbling Paint Visible?	
Condensate Drained?	NA	North Header	NM	NM		
Hour Meter Reading?	NM	South Header	NM	NM		
Lead Carbon Unit?	A	Combined System Influent	NM	1.4		
Secondary Carbon Unit?	B	Blower Effluent	NM	1.5	Rust Visible?	
Polish Carbon Unit?	N/A	Lead Carbon Effluent	NM	0.0		
VFD Setting (Hz)	60	Secondary Carbon Effluent	NM	0.0		
		System Effluent	Effluent is secondary tank - Tank C offline			
		Ambient Air		0.0	Tank	Y/N
		Blower Filter Inlet	NM		A	Yes
		Blower Filter Outlet	NM		B	Yes
					C	Yes
ABBREVIATIONS		COMMENTS				
ppm = parts per million CFM = cubic feet per minute ft/min = feet per minute PID = photoionization detector N/A = Not Applicable VOC = volatile organic compound in. H ₂ O = inches of water column NM = Not Measured VFD = Variable Frequency Drive						

50 Tufts Street Sub-Slab Depressurization System Monthly Monitoring Form

GENERAL MONITORING INFORMATION									
GEI Field Representative(s):		D. Miller			Monitoring Start Time:		4:45 PM		
					Monitoring End Time:		5:10 PM		
Date:		03/12/24							
Weather:		Mid 50's, Sunny							
INSTRUMENTATION INFORMATION									
		Instrument	Manufacturer	Model	Calibrated To:	Successful Calibration?			
		PID (ppm)	RAE Systems	MiniRAE 3000	100 ppm Isobutylene	Y / N 100.0 ppm			
		Manometer (in. H ₂ O)	Dwyer	Mark III-475-0 Series	N/A	Zeroed before each reading			
		Anemometer (CFM)	Reed	R4500SD	N/A	N/A			
FIELD MEASUREMENTS & OBSERVATIONS									
System Status/Configuration		Pressure/VOC Measurements				System Flow Rate Data			
		Monitoring Point	Pressure (in. H ₂ O)	VOC (ppm)	Velocity (ft/min)	System Flowrate (CFM):			
Fenced Enclosure Secure?	Yes	West Header	NM	NM	NM	NM			
Blower On?	Yes	Center Header	NM	NM					
Condensate Accumulated?	No	East Header	NM	NM	Tank Exterior Monitoring				
Condensate Drained?	NA	North Header	NM	NM					
Hour Meter Reading?	NM	South Header	NM	NM	Bubbling Paint Visible?				
Lead Carbon Unit?	A	Combined System Influent	NM	17.3	Tank	Y/N			
Secondary Carbon Unit?	B	Blower Effluent	NM	24.0	A	Yes			
Polish Carbon Unit?	N/A	Lead Carbon Effluent	NM	0.0	B	Yes			
VFD Setting (Hz)	60	Secondary Carbon Effluent	NM	0.0	C	Yes			
		System Effluent	Effluent is secondary tank - Tank C offline			Rust Visible?			
		Ambient Air		0.0	Tank	Y/N			
		Blower Filter Inlet	NM		A	Yes			
		Blower Filter Outlet	NM		B	Yes			
					C	Yes			
ABBREVIATIONS		COMMENTS							
ppm = parts per million CFM = cubic feet per minute ft/min = feet per minute PID = photoionization detector N/A = Not Applicable VOC = volatile organic compound in. H ₂ O = inches of water column NM = Not Measured VFD = Variable Frequency Drive									

**50 Tufts Street Sub-Slab Depressurization System
Monthly Monitoring Form**

GENERAL MONITORING INFORMATION						
GEI Field Representative(s):	N. Troccoli			Monitoring Start Time:	1:30 PM	
				Monitoring End Time:	2:15 PM	
Date:	04/25/24					
Weather:	60's, Sunny					
INSTRUMENTATION INFORMATION						
	Instrument	Manufacturer	Model	Calibrated To:	Successful Calibration?	
	PID (ppm)	RAE Systems	MiniRAE 3000	100 ppm Isobutylene	Y / N 100.5 ppm	
	Manometer (in. H ₂ O)	Dwyer	Mark III-475-0 Series	N/A	Zeroed before each reading	
	Anemometer (CFM)	Reed	R4500SD	N/A	N/A	
FIELD MEASUREMENTS & OBSERVATIONS						
System Status/Configuration		Pressure/VOC Measurements			System Flow Rate Data	
		Monitoring Point	Pressure (in. H₂O)	VOC (ppm)	Velocity (ft/min)	System Flowrate (CFM):
Fenced Enclosure Secure?	Yes	West Header	-2.05	1.2	5262	459
Blower On?	Yes	Center Header	-2.00	1.5		
Condensate Accumulated?	No	East Header	-2.07	0.6		
Condensate Drained?	NA	North Header	-1.98	0.4		
Hour Meter Reading?	NM	South Header	-2.18	2.9		
Lead Carbon Unit?	A	Combined System Influent	-5.92	1.3		
Secondary Carbon Unit?	B	Blower Effluent	29.20	1.6		
Polish Carbon Unit?	N/A	Lead Carbon Effluent	18.18	0.0		
VFD Setting (Hz)	60	Secondary Carbon Effluent	1.90	0.0		
		System Effluent	Effluent is secondary tank - Tank C offline			
		Ambient Air		0.0		
		Blower Filter Inlet	-17			
		Blower Filter Outlet	NM			
					Tank Exterior Monitoring	
					Bubbling Paint Visible?	
					Tank	Y/N
					A	Yes
					B	Yes
					C	Yes
					Rust Visible?	
					Tank	Y/N
					A	Yes
					B	Yes
					C	Yes
ABBREVIATIONS		COMMENTS				
ppm = parts per million CFM = cubic feet per minute ft/min = feet per minute PID = photoionization detector N/A = Not Applicable VOC = volatile organic compound in. H ₂ O = inches of water column NM = Not Measured VFD = Variable Frequency Drive						

**50 Tufts Street Sub-Slab Depressurization System
Monthly Monitoring Form**

GENERAL MONITORING INFORMATION														
GEI Field Representative(s): <u>N. Troccoli</u> Date: <u>05/10/24</u> Weather: <u>Low 50's, Sunny</u>		Monitoring Start Time: <u>11:00 AM</u> Monitoring End Time: <u>11:15 AM</u>												
INSTRUMENTATION INFORMATION														
	Instrument	Manufacturer	Model	Calibrated To:	Successful Calibration?									
	PID (ppm)	RAE Systems	MiniRAE 3000	100 ppm Isobutylene	Y / N 100.7 ppm									
	Manometer (in. H ₂ O)	Dwyer	Mark III-475-0 Series	N/A	Zeroed before each reading									
	Anemometer (CFM)	Reed	R4500SD	N/A	N/A									
FIELD MEASUREMENTS & OBSERVATIONS														
System Status/Configuration Fenced Enclosure Secure? <u>Yes</u> Blower On? <u>Yes</u> Condensate Accumulated? <u>No</u> Condensate Drained? <u>NA</u> Hour Meter Reading? <u>NM</u> Lead Carbon Unit? <u>A</u> Secondary Carbon Unit? <u>B</u> Polish Carbon Unit? <u>N/A</u> VFD Setting (Hz) <u>60</u>		Pressure/VOC Measurements			System Flow Rate Data									
		Monitoring Point	Pressure (in. H₂O)	VOC (ppm)	Velocity (ft/min)	System Flowrate (CFM):								
		West Header	NM	NM	NM	NM								
		Center Header	NM	NM										
		East Header	NM	NM	Tank Exterior Monitoring Bubbling Paint Visible? <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td align="center">Tank</td> <td align="center">Y/N</td> </tr> <tr> <td align="center">A</td> <td align="center">Yes</td> </tr> <tr> <td align="center">B</td> <td align="center">Yes</td> </tr> <tr> <td align="center">C</td> <td align="center">Yes</td> </tr> </table>		Tank	Y/N	A	Yes	B	Yes	C	Yes
Tank	Y/N													
A	Yes													
B	Yes													
C	Yes													
		North Header	NM	NM										
		South Header	NM	NM										
		Combined System Influent	NM	1.3										
		Blower Effluent	NM	1.5	Rust Visible? <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td align="center">Tank</td> <td align="center">Y/N</td> </tr> <tr> <td align="center">A</td> <td align="center">Yes</td> </tr> <tr> <td align="center">B</td> <td align="center">Yes</td> </tr> <tr> <td align="center">C</td> <td align="center">Yes</td> </tr> </table>		Tank	Y/N	A	Yes	B	Yes	C	Yes
Tank	Y/N													
A	Yes													
B	Yes													
C	Yes													
		Lead Carbon Effluent	NM	0.0										
		Secondary Carbon Effluent	NM	0.0										
		System Effluent	Effluent is secondary tank - Tank C offline											
		Ambient Air		0.0										
		Blower Filter Inlet	NM											
		Blower Filter Outlet	NM											
ABBREVIATIONS		COMMENTS												
ppm = parts per million CFM = cubic feet per minute ft/min = feet per minute PID = photoionization detector N/A = Not Applicable VOC = volatile organic compound in. H ₂ O = inches of water column NM = Not Measured VFD = Variable Frequency Drive														

**60 Tufts Street
SSDS Field Monitoring Form**

GENERAL MONITORING INFORMATION

GEI Field Representative(s):	N. Troccoli	Monitoring Start Time:	1:15 PM
	D. Miller	Monitoring End Time:	1:35 PM
Date:	01/08/24		
Weather:	30's°F, Sunny		

INSTRUMENTATION INFORMATION

Instrument	Manufacturer	Model	Serial No.	Calibrated To:	Successful Calibration?
PID (ppm)	RAE Systems	miniRAE 3000	592-911053	100.0 ppm Isobutylene	Y / N Cal. Reading (ppm): 100.0
Manometer (in. H ₂ O)	Dwyer	Mark III-475-0 Series	N/A	N/A	Zeroed before each reading? Y / N
Anemometer (CFM)	Reed	R4500SD	N/A	N/A	N/A

FIELD MEASUREMENTS / OBSERVATIONS

System Status/Configuration		Pressure/VOC Measurements			System Flow Rate Data	
		Monitoring Point	Pressure (in. H ₂ O)	VOC (ppm)	Velocity (feet per minute)	System Flowrate (CFM): = (PI * r ²) * ft per min
Blower Enclosure Secure?	Y / N	North Header	NM*	NM*	1303	111
Blower On?	Y / N	South Header	NM*	NM*		
Influent Condensate Accumulated?	Y / N	Combined System Influent	-1.48	0.0		
Effluent Condensate Accumulated?	Y / N	System Effluent	N/A	0.0		
Condensate Drained?	Y / N	Blower Filter Inlet	8			
Hour Meter Reading	N/A	Blower Filter Outlet	31			
VFD Setting (Hz)	60	Ambient Air Outside Blower Enclosure		0.0		

NOTES:

1. ppm = parts per million.
2. CFM = cubic feet per minute.
3. PID = photoionization detector.
4. N/A = Not Applicable.
5. VOC = volatile organic compound.
6. in. H₂O = inches of water column.
7. VFD = variable frequency drive.
8. Hz = Hertz.

COMMENTS:

* Note: Headers not measured because we did not have access to the building.

**60 Tufts Street
SSDS Field Monitoring Form**

GENERAL MONITORING INFORMATION

GEI Field Representative(s):	N. Troccoli	Monitoring Start Time:	2:15 PM
		Monitoring End Time:	2:45 PM
Date:	04/25/24		
Weather:	60's °F, Sunny		

INSTRUMENTATION INFORMATION

Instrument	Manufacturer	Model	Serial No.	Calibrated To:	Successful Calibration?
PID (ppm)	RAE Systems	miniRAE 3000	592-911053	100.0 ppm Isobutylene	Y / N Cal. Reading (ppm): 100.5
Manometer (in. H ₂ O)	Dwyer	Mark III-475-0 Series	N/A	N/A	Zeroed before each reading? Y / N
Anemometer (CFM)	Reed	R4500SD	N/A	N/A	N/A

FIELD MEASUREMENTS / OBSERVATIONS

System Status/Configuration		Pressure/VOC Measurements			System Flow Rate Data	
		Monitoring Point	Pressure (in. H ₂ O)	VOC (ppm)	Velocity (feet per minute)	System Flowrate (CFM): = (PI * r ²) * ft per min
Blower Enclosure Secure?	Y / N	North Header	NM*	NM*	1230	105
Blower On?	Y / N	South Header	NM*	NM*		
Influent Condensate Accumulated?	Y / N	Combined System Influent	-1.09	0.0		
Effluent Condensate Accumulated?	Y / N	System Effluent	N/A	0.0		
Condensate Drained?	Y / N	Blower Filter Inlet	9			
Hour Meter Reading	N/A	Blower Filter Outlet	32			
VFD Setting (Hz)	60	Ambient Air Outside Blower Enclosure		0.0		

NOTES:

1. ppm = parts per million.
2. CFM = cubic feet per minute.
3. PID = photoionization detector.
4. N/A = Not Applicable.
5. VOC = volatile organic compound.
6. in. H₂O = inches of water column.
7. VFD = variable frequency drive.
8. Hz = Hertz.

COMMENTS:

* Note: Headers not measured because we did not have access to the building.

**Capuano Center Sub-Slab Depressurization System
Monthly Mechanical Inspection Log**

GENERAL INFORMATION					
GEI Field Representatives: <u> D. Miller </u>		Outdoor Monitoring		Indoor Monitoring	
Date: <u> 01/08/24 </u>		Start-time of monitoring work: <u> 10:55 AM </u>		NA	
Weather: <u> 30's °F, Sunny </u>		End-time of monitoring work: <u> 12:25 PM </u>		NA	
INSTRUMENTATION INFORMATION					
Instrument	Manufacturer	Model	GEI Identification No.	Calibrant	Successful Calibration
PID (ppm)	RAE Systems	miniRAE3000	SN 592-911053	100 ppm Isobutylene	Yes
Manometer (in. H ₂ O)	Dwyer	Mark III-475-0000-FM	N/A	N/A	Zeroed before each reading
Hot Wire Thermo-Anemometer (ft/min)	Reed	R4500SD	N/A	N/A	Zeroed before each reading
OBSERVATIONS AND MEASUREMENTS					
ENCLOSURE MEASUREMENTS					
Shed Secure? <u> NA </u>		Influent Flow Rate			
Condensate Accumulated? <u> Yes </u>		Port ID		Flow (cfm)	
Condensate Drained? <u> No </u>		Manifold 12		80	
		Manifold 13		41*	
		Manifold 14		61	
System Monitoring Points					
Port ID	Typical Vacuum Range (in. H ₂ O)	Vacuum (in. H ₂ O)	Typical Range of VOCs (ppb)	VOC Concentration (ppm)	
Manifold 12	-0.300 to -0.500	-0.972	0 to 2000	0.0	
Manifold 13	-0.300 to -0.500	-2.539*	0 to 2000	0.0	
Manifold 14	-0.300 to -0.500	-0.846	0 to 2000	0.0	
EXTERIOR EXTRACTION MONITORING POINT MEASUREMENTS					
Monitoring Point Identification	Status (on/off)	Vacuum (in. H ₂ O)	VOC Concentration (ppm)		
122-1	on	-0.721	0.0		
122-2	on	-0.777	0.0		
122-3	on	-0.741	0.0		
126-1	on	-0.733	0.0		
126-2	on	-0.554	0.0		
126-3	on	-0.604	0.0		
134-1	on	-0.813*	0.0		
134-2	on	-0.825*	0.0		
134-3	on	-0.641*	0.0		
138-1	on	-1.279*	0.0		
138-2	on	-1.214*	0.0		
138-3	on	-1.134*	0.0		
142-1	on	-0.598	0.0		
142-2	on	-0.603	0.0		
142-3	on	-0.589	0.0		
146-1	on	-0.569	0.0		
146-2	on	-0.556	0.0		
146-3	on	-0.555	0.0		

**Capuano Center Sub-Slab Depressurization System
Monthly Mechanical Inspection Log**

INTERIOR MEASUREMENTS																																									
Ambient Air Measurements		Sub-Slab Monitoring Points																																							
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Classroom	VOC Concentration (ppm)																																								
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Room 137A	NM	NM																																							
Room 142A	NM	NM																																							
Room 146A	NM	NM																																							
COMMENTS																																									
*Vacuum and flow readings were inconsistent due to condensate accumulation; average of measurements is shown - Manifold 12 Vacuum readings ranged from -1.673 to -3.404 (in. H₂O) and Flow readings ranged from 34 to 47 (cfm) - 134-1 Vacuum reading ranged from -0.130 to -1.496 (in. H₂O) - 134-2 Vacuum reading ranged from -0.143 to -1.507 (in. H₂O) - 134-3 Vacuum reading ranged from -0.192 to -1.090 (in. H₂O) - 138-1 Vacuum reading ranged from -0.336 to -2.221 (in. H₂O) - 138-2 Vacuum reading ranged from -0.198 to -2.229 (in. H₂O) - 138-3 Vacuum reading ranged from -0.194 to -2.073 (in. H₂O)																																									
Notes: 1. Manifold 12 is the manifold pipe for rooms 122 and 126. Manifold 13 is the manifold pipe for rooms 134 and 138. Manifold 14 is the manifold pipe for rooms 142 and 146. 2. PID = photoionization detector. 3. ppb = parts per billion. 4. ppm = parts per million. 5. in. H₂O = inches of water column. 6. ft = feet. 7. cfm = cubic feet per minute. 8. NA = Not Applicable. 9. NM = Not Measured. 10. Anemometer not functioning. Influent flow was not measured.																																									

**Capuano Center Sub-Slab Depressurization System
Monthly Mechanical Inspection Log**

GENERAL INFORMATION					
GEI Field Representatives: <u>N. Troccoli</u>		Outdoor Monitoring		Indoor Monitoring	
Date: <u>04/25/24</u>		Start-time of monitoring work: <u>2:45 PM</u>		NA	
Weather: <u>60's °F, Sunny</u>		End-time of monitoring work: <u>4:15 PM</u>		NA	
INSTRUMENTATION INFORMATION					
Instrument	Manufacturer	Model	GEI Identification No.	Calibrant	Successful Calibration
PID (ppm)	RAE Systems	miniRAE3000	SN 592-911053	100 ppm Isobutylene	Yes
Manometer (in. H ₂ O)	Dwyer	Mark III-475-0000-FM	N/A	N/A	Zeroed before each reading
Hot Wire Thermo-Anemometer (ft/min)	Reed	R4500SD	N/A	N/A	Zeroed before each reading
OBSERVATIONS AND MEASUREMENTS					
ENCLOSURE MEASUREMENTS					
Shed Secure? <u>NA</u>		Influent Flow Rate			
Condensate Accumulated? <u>Yes</u>		Port ID		Flow (cfm)	
Condensate Drained? <u>No</u>		Manifold 12		111	
		Manifold 13		71	
		Manifold 14		100	
System Monitoring Points					
Port ID	Typical Vacuum Range (in. H ₂ O)	Vacuum (in. H ₂ O)	Typical Range of VOCs (ppb)	VOC Concentration (ppm)	
Manifold 12	-0.300 to -0.500	-0.913	0 to 2000	0.1	
Manifold 13	-0.300 to -0.500	-1.471	0 to 2000	0.1	
Manifold 14	-0.300 to -0.500	-0.766	0 to 2000	0.1	
EXTERIOR EXTRACTION MONITORING POINT MEASUREMENTS					
Monitoring Point Identification	Status (on/off)	Vacuum (in. H ₂ O)	VOC Concentration (ppm)		
122-1	on	-0.750	0.1		
122-2	on	-0.725	0.0		
122-3	on	-0.952	0.0		
126-1	on	-0.689	0.0		
126-2	on	-0.542	0.0		
126-3	on	-0.592	0.0		
134-1	on	-1.249	0.0		
134-2	on	-1.368	0.0		
134-3	on	-1.240	0.0		
138-1	on	-1.349	0.1		
138-2	on	-1.310	0.1		
138-3	on	-1.331	0.1		
142-1	on	-0.528	0.0		
142-2	on	-0.553	0.2		
142-3	on	-0.544	0.2		
146-1	on	-0.501	0.0		
146-2	on	-0.496	0.1		
146-3	on	-0.506	0.0		

**Capuano Center Sub-Slab Depressurization System
Monthly Mechanical Inspection Log**

INTERIOR MEASUREMENTS		
Ambient Air Measurements		Sub-Slab Monitoring Points
Classroom	VOC Concentration (ppm)	
122	NM	
126	NM	
134	NM	
138	NM	
133	NM	
137	NM	
142	NM	
146	NM	
COMMENTS		
*Vacuum and flow readings were inconsistent due to condensate accumulation; average of measurements is shown - Manifold 12 Vacuum readings ranged from -1.673 to -3.404 (in. H₂O) and Flow readings ranged from 34 to 47 (cfm) - 134-1 Vacuum reading ranged from -0.130 to -1.496 (in. H₂O) - 134-2 Vacuum reading ranged from -0.143 to -1.507 (in. H₂O) - 134-3 Vacuum reading ranged from -0.192 to -1.090 (in. H₂O) - 138-1 Vacuum reading ranged from -0.336 to -2.221 (in. H₂O) - 138-2 Vacuum reading ranged from -0.198 to -2.229 (in. H₂O) - 138-3 Vacuum reading ranged from -0.194 to -2.073 (in. H₂O)		
Notes: 1. Manifold 12 is the manifold pipe for rooms 122 and 126. Manifold 13 is the manifold pipe for rooms 134 and 138. Manifold 14 is the manifold pipe for rooms 142 and 146. 2. PID = photoionization detector. 3. ppb = parts per billion. 4. ppm = parts per million. 5. in. H₂O = inches of water column. 6. ft = feet. 7. cfm = cubic feet per minute. 8. NA = Not Applicable. 9. NM = Not Measured. 10. Anemometer not functioning. Influent flow was not measured.		

Appendix I EPMM Inspection Forms

**EPMM Option 1
Field Monitoring / Inspection Form**

GENERAL MONITORING INFORMATION					
GEI Field Representative(s):	D. Miller, K. Dady			Address:	31-33 Knowlton Street
				Monitoring Start Time:	9:15 AM
Date:	05/07/24			Monitoring End Time:	1:30 PM
Weather:	Sunny, ~70°F				
INSTRUMENTATION INFORMATION					
Instrument	Manufacturer	Model	Serial No.	Calibrated To:	Successful Calibration?
PID (ppm)	RAE Systems	miniRAE3000	592-909771	100 ppm Isobutylene	☒ N Cal. Reading (ppm): 100.1
Manometer (in. H ₂ O)	Dwyer	Mark 111-475-0 Series	475-000-FM	N/A	Zeroed before each reading? ☒ N
FIELD MEASUREMENTS / OBSERVATIONS					
System Status/Configuration		Pressure/VOC Measurements			
		Monitoring Point	Pressure (in. H ₂ O)	VOC (ppm)	Location Description (e.g., distance from foundation walls)
Radon Fan On?	☒ Y ☐ N	System Influent Pipe (Dwyer Manometer)	NM	NM	Need to replace, all water evaporated
Exterior Fan Condition (housing, wires, etc)?	good / ☒ fair / ☐ poor	SS1	NM	NM	
Excessive fan noise?	Y / ☒ N	SS2	NM	NM	
Interior Extraction Pipe Condition (cracks, damage, etc)?	☒ good / fair / poor	Ambient Air	N/A	0.0	
Exterior Pipe Condition (cracks, damage, etc)?	☒ good / fair / poor				
Leaks Around Slab Penetrations?	Y / ☒ N				
Slab or Wall Cracks / Openings That Impair System Performance?	Y / ☒ N				Degraded concrete in storage room, likely due to water infiltration
NOTES:					
1. EPMM = Exposure Pathway Mitigation Measure. 2. ppm = parts per million. 3. PID = photoionization detector. 4. N/A = Not Applicable. 5. VOC = volatile organic compound. 6. in. H ₂ O = inches of water column. 7. NM = Not Measured. 1. Observed peeling epoxy in few locations on floor and wall, especially near stairs. Moderate peeling at wall/floor interface.					
COMMENTS:					
1. K. Dady replaced the Radon Fan and adjacent piping; system and sub-slab monitoring point pressures not measured during observations.					
2. Many shallow cracks throughout slab and wall, especially in slab area near first floor stairs and bulkhead. Worn concrete in storage area, screened with PID = 0.0 ppm.					
3. Only identified one sub-slab point, in back room with furnace and water shutoff.					
4. Observed sump in room with laundry, adjacent to driveway side. PID = 0.0 ppm.					
5. Replaced node battery.					

**EPMM Options 2 and 3
Field Monitoring / Inspection Form**

GENERAL MONITORING INFORMATION FOR PASSIVE EPMM SYSTEMS

GEI Field Representative(s):	N. Troccoli	Property Address:	12 Morton Street
Date:	02/06/24	Monitoring Start Time:	10:55 AM
Weather:	Sunny, ~35°F	Monitoring End Time:	11:30 AM
		Option 2 or 3:	2 / <u>3</u>

INSTRUMENTATION INFORMATION

Instrument	Manufacturer	Model	Serial No.	Calibrated To:	Successful Calibration?
PID (ppm)	RAE Systems	miniRAE3000	592-909771	100 ppm Isobutylene	<u>Y</u> / N Cal. Reading (ppm): 100.0

FIELD MEASUREMENTS / OBSERVATIONS

System Status/Configuration

Exterior Pipe Condition (cracks, damage, etc.)?	<u>good</u> / fair / poor
Interior Pipe Condition (cracks, damage, etc.)?	<u>good</u> / fair / poor
Epoxy Condition (cracks, peeling, water damage, etc.)?	<u>good</u> / fair / poor
Slab or Wall Cracks / Openings That Impair System Performance?	Y / <u>N</u>
Downdraft Prevention Cap Present?	<u>Y</u> / N

NOTES

1. EPMM = Exposure Pathway Mitigation Measure.
2. Option 2 = Consists of a venting system installed in a shallow trench around the interior basement floor perimeter, cement stucco applied to the walls, and an epoxy vapor barrier applied to the walls and floor.
4. Option 3 = Consists of a venting system installed beneath the basement floor, a new concrete floor slab, cement stucco applied to the walls, and an epoxy vapor barrier applied to the walls and floor.
5. ppm = parts per million.
6. PID = photoionization detector.
7. VOC = volatile organic compound.

COMMENTS

1. Observed peeling epoxy in few locations on floor and wall, especially near stairs. Moderate peeling at wall/floor interface.

**EPMM Options 2 and 3
Field Monitoring / Inspection Form**

GENERAL MONITORING INFORMATION FOR PASSIVE EPMM SYSTEMS

GEI Field Representative(s):	N. Troccoli	Property Address:	19-19A Morton Street
Date:	04/04/24	Monitoring Start Time:	2:45 PM
Weather:	Light mist, ~40°F	Monitoring End Time:	3:15 PM
		Option 2 or 3:	2 / <u>3</u>

INSTRUMENTATION INFORMATION

Instrument	Manufacturer	Model	Serial No.	Calibrated To:	Successful Calibration?
PID (ppm)	RAE Systems	ppmRAE3000	592-909771	100 ppm Isobutylene	<u>Y</u> / N Cal. Reading (ppm): 100.0

FIELD MEASUREMENTS / OBSERVATIONS

System Status/Configuration

Exterior Pipe Condition (cracks, damage, etc.)?	<u>good</u> / fair / poor
Interior Pipe Condition (cracks, damage, etc.)?	<u>good</u> / fair / poor
Epoxy Condition (cracks, peeling, water damage, etc.)?	good <u>fair</u> poor
Slab or Wall Cracks / Openings That Impair System Performance?	Y / <u>N</u>
Downdraft Prevention Cap Present?	<u>Y</u> / N

NOTES

1. EPMM = Exposure Pathway Mitigation Measure.
2. Option 2 = Consists of a venting system installed in a shallow trench around the interior basement floor perimeter, cement stucco applied to the walls, and an epoxy vapor barrier applied to the walls and floor.
4. Option 3 = Consists of a venting system installed beneath the basement floor, a new concrete floor slab, cement stucco applied to the walls, and an epoxy vapor barrier applied to the walls and floor.
5. ppm = parts per million.
6. PID = photoionization detector.
7. VOC = volatile organic compound.

COMMENTS

1. Observed peeling epoxy in few locations on floor and wall, especially near stairs. Moderate peeling at wall/floor interface.
2. Exposed concrete where water heater was replaced observed in 2018. Did not observe in 2024.
3. In 2018, minor water damage was observed near stairs, and at wall adjacent to Morton Street. No water damage observed in 2024.
4. Ambient Air = 0.0 ppm.